

PC TODAY

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A Sandhills
Publication

Microsoft's Free Software Power Pack, p.34

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Microsoft's Battles Will Change The Way You Search, Surf & Communicate



April 2005 Vol. 3 Iss. 4
\$7.99 U.S. \$9.99 Canada

PLUS: Turn Vinyl & Tape Into Digital Sound, p.101

IBM recommends Microsoft® Windows® XP Professional.



GO with IBM Think Express Program

IBM Think Express models are configured and priced with small to medium-size businesses in mind.

IBM rated #1 in tech support for desktops and notebooks by PC Magazine readers.
PC Magazine 17th Annual Reader Satisfaction Survey – July 14, 2004

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MOBILE TECHNOLOGY

You're looking at the world's most secure wireless PC.

Now you can have security at your fingertips. Literally. That's because select IBM ThinkPad notebooks, like the T42 detailed to the right, features Intel® Centrino™ Mobile Technology, so you can access your work wirelessly anytime. And with our biometric Integrated Fingerprint Reader, access is easier than ever. Instead of entering tons of passwords, it all happens with just one swipe of your finger and one password. These innovations, combined with our security chip and software, provide a level of security that no one else offers as a standard feature. Giving you the most secure wireless PC available. Hands down. **And the easiest way to unlock it.**

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IBM ThinkPad X40 Our thinnest and lightest

Distinctive Innovations	IBM Embedded Security Subsystem 2.0 ¹
	IBM Rescue and Recovery™ – One-button recovery and restore solution.
System Features	Intel® Centrino™ Mobile Technology
	Intel® Pentium® M Processor ULV 738 (1.40GHz) ²
	Intel® PRO Wireless Network Connection 802.11b/g ³
	Microsoft® Windows® XP Professional ⁴
	12.1" XGA TFT display (1024x768)
	256MB DDR SDRAM ⁵
	40GB hard drive ⁶
	Integrated Gigabit Ethernet and modem
	Legendary IBM full-size keyboard ⁹
	Up to 70-hr Li-Ion battery ¹¹
Express Price	1-yr system/battery limited warranty ⁷
	\$1749 NavCode 2386E9U-M554

IBM ThinkPad T42 Thin and light

Distinctive Innovations	Integrated Fingerprint Reader – Security at your fingertips.
	IBM Embedded Security Subsystem 2.0
System Features	Intel® Centrino™ Mobile Technology
	Intel® Pentium® M Processor 725 (1.60GHz)
	Intel® PRO Wireless Network Connection 802.11b/g
	Microsoft® Windows® XP Professional
	14.1" XGA TFT display (1024x768)
	32MB ATI Mobility RADEON 7500 graphics
	256MB DDR SDRAM
	40GB hard drive
	Integrated Gigabit Ethernet and modem
	IBM Ultrabay Slim CD-RW/DVD-ROM combo
Express Price	IBM UltraConnect Antenna for increased signal strength
	3-yr system / 1-yr battery limited warranty ⁷
Express Price	\$1649 NavCode 2379R1U-M554

objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), IBM will express ship the part to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, IBM may choose to perform service at the depot repair center. Calls must be received by 5pm local time in order to qualify for Next Business Day service. **(9) Full-size keyboard:** As defined by ISO/IEC 15412. **(10) Wireless:** Public wireless access limited; subscription may be required and fees may apply. **(11) Battery Life:** Based on manufacturer's published figures or CNET.com results for the top 5 vendors in first quarter 2004 notebook sales as reported by IDC. **Trademarks:** The following are trademarks or registered trademarks of IBM Corporation: IBM, the IBM logo, Rapid Restore, Rescue and Recovery, ThinkPad, Ultrabay, UltraConnect and UltraNav. Microsoft and Windows are registered trademarks of Microsoft Corporation. Intel, Intel Xeon, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Intel SpeedStep and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Other company, product and service names may be trademarks or service marks of other companies. © 2004 IBM Corporation. All rights reserved.

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To make IBM ThinkPad® notebooks even more valuable, each one featured here can give you the efficiency, productivity and edge you need and comes with all the following ThinkVantage™ Technologies:

IBM Active Protection System:

Butterfingers unite! Select IBM ThinkPad notebooks now include airbag-like technology to help protect your hard drive from some damage caused by drops and jolts.

IBM Rescue and Recovery:

Lost your data because of a software crash or virus? Recover previously saved data in minutes with our one-button solution.

IBM Access Connections:

Switch between wired and wireless connections.

IBM Embedded Security Subsystem 2.0:¹

Hackers and thieves, beware. Our combined hardware and software solution is designed to protect user data and keep it private.

Access IBM:

Get the help you need, when you need it. One button on your ThinkPad notebook brings you a world of resources and assistance.

IBM ThinkPad R51

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 725 (1.60GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 15" XGA TFT display (1024x768) 256MB DDR SDRAM 30GB hard drive Integrated Ethernet and modem Ultrabay Enhanced CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1229 NavCode 2883GKU-M554
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IBM ThinkPad T42

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 725 (1.60GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 14.1" XGA TFT display (1024x768) 32MB ATI Mobility RADEON 7500 256MB DDR SDRAM 40GB hard drive Integrated Ethernet and modem Ultrabay Slim CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1449 NavCode 2378R4U-M554
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Upgrade	IBM ServicePac® service upgrade ⁸ 3-year depot repair #30L9192 \$132.00
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IBM ThinkPad T42

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 735 (1.70GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 15" XGA TFT display (1024x768) 32MB ATI Mobility RADEON 7500 graphics 512MB DDR SDRAM 40GB hard drive Integrated Gigabit Ethernet and modem Ultrabay Slim CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1699 NavCode 2378FZU-M554
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Upgrade	IBM ServicePac® service upgrade 3-year depot repair #30L9192 \$132.00
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IBM ThinkPad R51

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 725 (1.60GHz) ² Intel® PRO Wireless Network Connection 802.11b/g ³ Microsoft® Windows® XP Professional ⁴ 14.1" XGA TFT display (1024x768) 256MB DDR SDRAM ⁵ 30GB hard drive ⁶ Integrated Ethernet and modem Ultrabay Enhanced CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1149* NavCode 2883ELU-M554
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IBM ThinkPad R51

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 725 (1.60GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 15" XGA TFT display (1024x768) 32MB ATI Mobility RADEON 7500 graphics 256MB DDR SDRAM 40GB hard drive Integrated Ethernet and modem Ultrabay Enhanced CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1249 NavCode 1836Q4U-M554
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IBM ThinkPad T42

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 735 (1.70GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 14.1" SXGA+ TFT display (1400x1050) 64MB ATI Mobility RADEON 9600 graphics 256MB DDR SDRAM 40GB hard drive Integrated Gigabit Ethernet and modem Ultrabay Slim CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 1-yr system/battery limited warranty ⁷
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Express Price	\$1649 NavCode 2378FVU-M554
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Upgrade	IBM ServicePac® service upgrade 3-year depot repair #30L9192 \$132.00
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IBM ThinkPad T42

System Features	Intel® Centrino™ Mobile Technology Intel® Pentium® M Processor 735 (1.70GHz) Intel® PRO Wireless Network Connection 802.11b/g Microsoft® Windows® XP Professional 15" SXGA+ TFT display (1400x1050) 64MB ATI Mobility RADEON 9600 graphics 512MB DDR SDRAM • 60GB hard drive Integrated Gigabit Ethernet and modem Ultrabay Slim CD-RW/DVD-ROM combo IBM UltraConnect Antenna for increased signal strength 3-yr system/1-yr battery limited warranty ⁷
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Express Price	\$1999 NavCode 2379DXU-M554
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Upgrade	IBM ServicePac® service upgrade 4-yr onsite repair/9x5/Next Business Day #69P9198 \$299.00
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IBM recommends Microsoft® Windows® XP Professional.



(Monitor not included)

ThinkExpress:

IBM ThinkExpress PCs are priced specifically for small and medium businesses.

ThinkVantage Design:

IBM ThinkCentre® desktops offer an easy-to-service chassis design to help increase uptime. And it's made from durable steel to protect the contents of your system.

Rescue and Recovery:

Lost your data because of a software crash or virus? Recover previously saved data in minutes with our one-button solution.

Access IBM:

Get the help you need, when you need it. One button on your ThinkCentre desktop brings you a world of IBM resources and assistance.



(Monitor not included)

IBM ThinkCentre A50 Ultra Small Form Factor

System Features	Intel® Pentium® 4 Processor with HT Technology 3GHz
	Microsoft® Windows® XP Professional
Express Price	Intel® Extreme Graphics 2
	Ultra small form factor – 74% smaller than a standard IBM desktop
	256MB DDR PC3200
	40GB hard drive and CD-ROM
	Gigabit Ethernet Integrated
	Norton Anti-Virus with 90 days of virus definition updates
	Lotus SmartSuite Millennium License
	1-yr limited warranty with 1-yr limited onsite service ¹⁰

\$659 NavCode 809021U-M554

Upgrade IBM ServicePac® service upgrade
3-year Onsite/9x5/Next Business Day Response #54P1861 \$132.00



(Monitor not included)

IBM ThinkCentre A51p Tower Form Factor

System Features	Intel® Pentium® 4 Processor 530 with HT Technology
	• Processor speed 3GHz • 800MHz FSB
Express Price	Microsoft® Windows® XP Professional
	Intel® Graphics Media Accelerator 9000
	256MB DDR2 PC2-3200
	40GB hard drive and CD-RW
	Gigabit Ethernet Integrated
	Norton Anti-Virus with 90 days of virus definition updates
	IBM Embedded Security Subsystem 2.0
	1-yr limited warranty with 1-yr limited onsite service ¹⁰

\$799 NavCode 842721U-M554

Upgrade IBM ServicePac® service upgrade
3-year Onsite/9x5/4-hr Response #54P1862 \$239.00

IBM ThinkCentre A50 Tower Form Factor

System Features	Intel® Pentium® 4 Processor with HT Technology 3GHz
	Microsoft® Windows® XP Professional
Express Price	Intel® Extreme Graphics 2
	256MB ⁵ DDR PC3200
	40GB hard drive and CD-ROM
	6 USB 2.0 Ports (2 on front)
	IBM Preferred Pro Keyboard
	Integrated Sound MAX Cadenza audio solution
	Integrated 10/100 Ethernet
	Norton AntiVirus™ with 90 days of virus definition updates
	Lotus® SmartSuite® Millennium License
	1-yr parts limited warranty with 1-yr limited onsite service ¹⁰

\$639 NavCode 814821U-M554

IBM ThinkCentre A50 Tower Form Factor

System Features	Intel® Pentium® 4 Processor with HT Technology 3GHz
	Microsoft® Windows® XP Professional
Express Price	Intel® Extreme Graphics 2
	256MB DDR PC3200
	40GB hard drive and CD-RW
	6 USB 2.0 Ports (2 on front)
	IBM ThinkVantage Design
	Integrated Sound MAX Cadenza audio solution
	Integrated 10/100 Ethernet
	Norton AntiVirus™ with 90 days of virus definition updates
	Lotus® SmartSuite® Millennium License
	1-yr limited warranty with 1-yr limited onsite service ¹⁰

\$669 NavCode 814822U-M554

IBM ThinkCentre A50 Tower Form Factor

System Features	Intel® Pentium® 4 Processor with HT Technology 3GHz
	Microsoft® Windows® XP Professional
Express Price	64MB nVIDIA GeForce MX 440
	512MB DDR PC3200
	80GB hard drive • CD-RW/DVD-ROM
	6 USB 2.0 Ports (2 on front)
	Integrated Sound MAX Cadenza audio solution
	Integrated 10/100 Ethernet
	Norton AntiVirus™ with 90 days of virus definition updates
	Lotus® SmartSuite® Millennium License
	3-yr parts limited warranty with 3-yr limited onsite service ¹⁰

\$969 NavCode 814723U-M554



MOBILE TECHNOLOGY

IBM Think Express Program:

We've configured and priced many of our products specifically for small and medium businesses. And best of all, they're available direct from IBM or through select IBM Business Partners.

IBM ThinkPad Accessories

IBM M400 Projector – an extra light, extra-small DLP microportable projector #0037A04 **\$1849**

Kensington MicroSaver Security Cable Lock from IBM #73P2582 **\$39**

IBM ThinkPad Carrying Case¹¹ – Expander (will hold your ThinkPad and IBM Projector) #73P3597 **\$59**

ThinkPad 72W AC/DC Combo Adapter #22P9010 **\$99**

ThinkPad Port Replicator II #74P6733 **\$149**

IBM ThinkCentre Accessories

IBM Multi-Burner Plus Drive – One drive does it all! Reads and writes both high capacity DVDs and inexpensive CD media #73P3370 **\$179**

IBM E74 17" (16" visible) CRT Monitor #63324HN **\$149**

IBM ThinkVision™ L170 17" Flat Panel Monitor #W9SPHB0 **\$389**



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COVER STORY

Microsoft's BATTLES

Microsoft is the world's most ubiquitous software company, and as such is an ongoing target for challengers. In this month's cover story we'll explore some of Microsoft's current battles with Mozilla.org, Google, Yahoo!, Apple, and others and provide a status report and a look ahead at how these competitions will affect the way you use your PC.

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How They'll Impact The Way You Use Your PC
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Enjoy New Ways To Search The Web & Your PC
- 56** **The Battle For The Browser**
2005 Could Be A Pivotal Year
- 60** **The Battle Over Web-Based Email**
We Compare Gmail, Hotmail & Yahoo! Mail
- 64** **The Battle Over Portable Tech Entertainment**
See How Devices Match Up & What The Future Holds For Major Competitors

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What If Microsoft Windows Were Free?
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The One-Stop Configuration Editor



Windows Boot Camp

If you're in the market for some basic, practical advice about Windows and Microsoft Office, this department is the perfect place to start.

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The Taskbar
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Windows XP Service Pack 2 Features

Office Space

Is it time to hunker down and get some office work done? This department includes software tutorials and articles with efficiency in mind.

- 29 **Advanced Guide**
Windows SharePoint Services 2003
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Factiva iWorks
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Getting A Good View
- 42 **Microsoft Publisher 2003**
Get More Media Content Free
- 43 **Adobe Illustrator CS**
Masking Magic In Illustrator
- 44 **Adobe GoLive CS**
Don't Be So Quick To Dismiss Pop-Ups
- 45 **Quark XPress 6.0**
Create & Apply Cascading Menus
- 46 **Intuit QuickBooks Pro 2005**
Create, Print & Email An Invoice



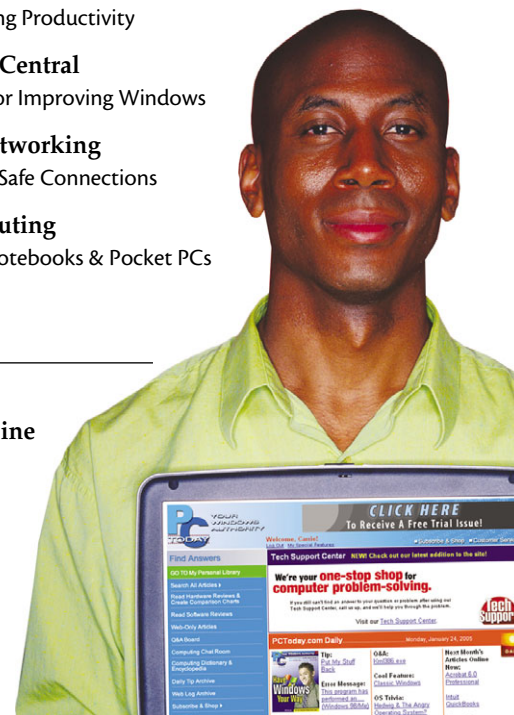
Tips & Tweaks

This department is your one-stop shop for productivity, system optimization, Web browsing, security, networking, mobile computing, and all sorts of other tips and tweaks.

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Tips For Increasing Productivity
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PCToday.com

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Find All Your Computing Information In One Place



Hardware

If you're on the lookout for new hardware, this department has previews of many items that have just hit the shelves or will be available soon.

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The Hardware Scene

A Look At New & Upcoming Arrivals

Apple iPod Shuffle
Canon PIXMA iP90
Creative TravelSound Notebook 500
eMachines T3624
HP Media Center m1270n Photosmart PC
LG Electronics Super-Multi Triple Format DVD Drives
Logitech Cordless 2.4GHz Presenter
NETGEAR Wireless Digital Media Player (MP115)
Olympus m:robe 500
Sony H-Series PC/TV Display
TEAC America USB 2.0 TV Tuner
ViewSonic PJ400 Projector



Software

Before you buy any new software or download blindly, check out this department for our latest software reviews, listing of free apps available for download, and head-to-head challenge.

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Pop-Up Blocker Shoot-Out

Which Program Is Best At Killing Those Ads?

89

Hard Drive-Scrubbing Batch Files

Programs That Keep Your Drive Clutter-Free

92

Find Your Way With MapPoint 2004

More Than 6,000 Years In The Making

95

Software Reviews

StompSoft RecoverLost Data
Stardock IconPackager 2.5
Fast Scout WebGrabIt 1.2

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Download City

Protect Document and Make Them Portable with PDF



Home Base

When you're ready to change out of that suit, kick your feet up, and get more entertainment value out of your home PC, this department will help you make the most of your valuable down time.

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Your Turn

Turn Vinyl & Tape Into Digital Sound

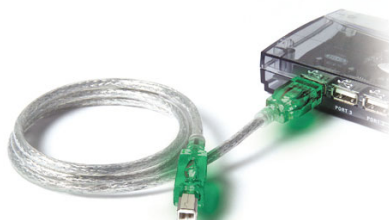
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Play Hard

A Look At What's New In PC Gaming

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Last Bytes



CORRECTIONS: In "Outside The Box: Slipstreaming" on page 37 of the February 2005 *PC Today*, a path and file are incorrectly identified as C:\XPSP2\I386\Update.exe; this should be C:\XPSP2\I386\UPDATE\Update.exe. In "PC Yesterday" on page 79 of the same issue, we incorrectly state that Intuit TurboTax supports Windows 95; it supports only Windows 98 and later.



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by Cal Clinchard



OS Wire

Windows XP Service Pack 3

Some *PC Today* readers have asked us about the next service pack for Windows XP—what it might include and when Microsoft might release it. It will probably not be nearly as interesting as WinXP SP2, which reshaped how WinXP interacts with third-party security software. The would-be WinXP SP3 would likely be a roll-up including previously released security updates and miscellaneous fixes. But if Microsoft's Windows AntiSpyware beta release is successful, an anticomponent is sure to show up in the next service pack.



Centrino, Meet Turion

Although Intel doesn't have a lock on the mobile technology market, the branding for its Centrino technology has proven to be undeniably catchy. But by the time you read this, Advanced Micro Devices should be putting the final touches on a competitive 64-bit technology for notebooks, code-named Turion. AMD hasn't released many details but, similar to the latest

Centrino generation, the emphasis is on simultaneously increasing computing power and battery life and reducing heat.

More Switching

It seems that Apple played its cards right when it anticipated that Windows users would pay more attention to the idea of switching to the Macintosh platform if low-priced systems were available. At this winter's Macworld Conference & Expo, Apple debuted the Mac mini, a diminutive yet powerful computer that doesn't include a monitor, keyboard, or mouse, but sports a price tag as low as \$499, on par with Gateway eMachines systems. Post-expo reports indicate that Windows users did indeed take notice, and Mac mini sales continue to be brisk.



Release Notes

2000

Windows 2000 Professional

March 2000

Windows Me

December 2000

2001

Windows XP Home Edition & Windows XP Professional

October 2001

2002

WinXP Media Center Edition

November 2002

2003

WinXP Tablet PC Edition

February 2003

WinXP MCE 2004 & Mac OS X 10.3 (aka Panther)

October 2003

Linux 2.6

December 2003

2004

Windows Longhorn WinHEC 2004 Build 4074

May 2004

WinXP Service Pack 2 & Mac OS X 10.3.5

August 2004

WinXP Starter Edition

September 2004

WinXP Media Center Edition 2005, Windows Media Player 10, WinXP Embedded SP2 & Partner Pack for Windows

October 2004

Windows Server 2003 SP1, MSN Desktop Search Beta & SQL Server 2005 Express Manager technical preview

December 2004

2005

WinServer 2003 64-bit version & Mac OS X 10.4 (aka Tiger)

Early 2005

WinFX, Indigo, Avalon for WinXP/Server 2003

Before or concurrent with Longhorn release

Longhorn Desktop and Server Beta 1

Mid-2005*

Microsoft Office 12 Beta 1

August 2005

Microsoft Office 2003 Small Business Edition

Late 2005

2006

Longhorn Server Beta 2

2006

WinServer 2003 SP2

2006

Longhorn Desktop & Server

Mid-2006*

Windows 98/Me Extended Support ends

June 2006

WinXP Home Extended Support ends

December 2006

2007

Win2000 Professional Extended Support ends

March 2007

WinXP Professional & WinXP Tablet PC Edition

December 2008

Longhorn Server Update and Service Pack

2008 or 2009

Windows Blackcomb

2010+*

* Estimated



Your Guide To Windows Updates

If you haven't set your computer to download and install Windows updates automatically, don't forget to regularly visit windowsupdate.microsoft.com and either search for needed updates, or let the site scan your system and suggest which ones you need.

You can search for an update you read about here by the Knowledge Base article number that precedes each update. Click the FAQ link, and then the Windows Update Catalog link. Choose Search Microsoft.com from the Search menu at the top of the page and click Advanced Search. Enter the KB article number, and then select Knowledge Base (Support) from the site menu.



Windows XP

886185 Critical Update For Windows XP (384 KB).

This update corrects a security issue for users of WinXP Service Pack 2 (Home Edition and Professional),

WinXP Tablet PC 2005, and WinXP Media Center Edition SP2 who also use a dial-up connection.

It's possible that after setting up Windows Firewall, your system resources can be accessed by other online users if you've made an exception in the firewall's settings. Windows Firewall blocks incoming network connections unless you exempt a program or service. If you've made an exception, the firewall by default will choose the My network (subnet) only scope option on the Change Scope screen (click the Add Port, then the Change Scope button to open this screen). Under this scenario, the firewall may deem the entire Internet a local subnet, thus leaving your system exposed.

888316 Update For WinXP Media Center Edition 2005 (559 KB). This recommended update corrects six flaws (non-security related) in WinXP Media Center 2005. One of the problems

involves the Scheduled Recordings list. Currently, the list may still display scheduled series recordings that you've deleted from the list. Two corrections are made to the Electronic Program Guide. One reinstates the red recording indicator, which currently is not displayed in the guide even when you schedule the system to record a TV program. Another correction changes the fact that the guide sometimes displays the wrong list of channel designations after you restart or update your PC.



Windows 2000/XP

871250 Security Update For Windows: Vulnerability In The Indexing

Service Could Allow Remote Code Execution (size varies). Although this update addresses a potential security breach, the scenarios under which a successful attack could be made are so rare that Microsoft labels this a recommended patch for users of WinXP (excluding those with SP2 installed), plus Win2000 SP3 and 4.

The Indexing Service in Windows is used for local and remote file system queries. The service, which is not enabled by default, mishandles query validation requests due to an unchecked buffer. This leaves systems open to the possibility of a remotely executed attack. By default, the Indexing Service cannot be accessed from IIS (Internet Information Services); such a connection must be set up. Only users with access permission could exploit the flaw through IIS. If IIS is not enabled, then potential attackers are limited to those who could exploit the flaw through a remote file system query. Although it's possible the attacker could gain control over the system, it's more likely that the result would be denial of service.

All Versions



828026 Update for Windows Media Player URL Script Command (2.8 MB).

This recommended update is for users of WMP 9 Series, 8.01, 7.1, and 6.4. It gives you more control over the playing of embedded scripts in streaming files played in WMP.

When creating files for use in media players, authors can add embedded scripts that will run during the playing of a streaming file. The script can be written to do any of a number of things; a URL script, for example, can launch your browser and connect you to a certain Web site.

This update modifies the way WMP handles embedded URL scripts by making it recognize three values in the Registry under HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\MEDIAPLAYER\PREFERENCES.

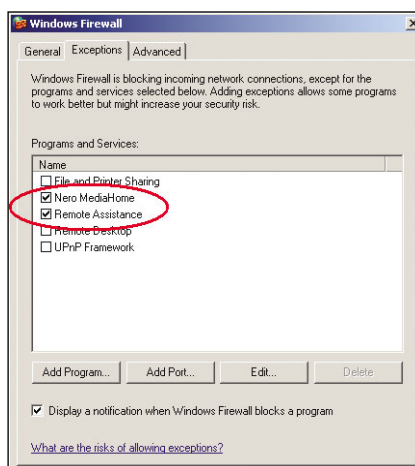
890175 Security Update For Windows: Vulnerability In HTML Help Could Allow Code Execution (size varies). Internet Explorer employs a cross-domain security model that prevents Web pages from different domains that are opened simultaneously in the browser from interfering with one another. However, a problem exists in the way that the HTML Help ActiveX control handles requests that cross different domains, leaving your system vulnerable.

To exploit this vulnerability, an attacker would have to either create a malicious Web site or corrupt an existing one. If he successfully lured people to the site, he could gain control over the victim's system. If the victim has administrative privileges, that means the attacker could create new accounts, manipulate data, and run programs of his choice.

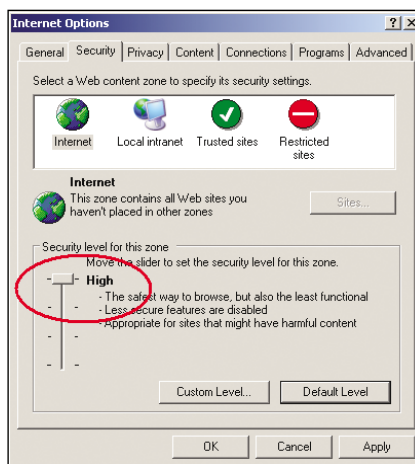
HTML Help is Microsoft's help system for all the Windows operating systems. One component of this system, its ActiveX control, enables the insertion of different types of functionality into HTML files. Update 890175, a critical update for all operating systems, addresses this flawed component, preventing the creation of the ActiveX control outside of the Local Machine zone, one of four security zones IE employs.

If you prefer not to install this update, which can be uninstalled, you can follow one of several workarounds provided in this bulletin. Microsoft warns that uninstalling this update might prevent some HTML help files from working. Therefore, you should install update 811630 *before* installing this one.

887797 Cumulative Update For Outlook Express (size varies). This recommended update is for users of three different versions of Outlook Express: 5.5, 5.5 SP2, and 6.0. It corrects seven flaws in the email program, including one that messes up the subject line of your email messages. The message is delivered properly to the address you've



If you've made an exception in Windows Firewall for a program or service (note the two exceptions in this image), your system resources could be open to an attack.



One suggested workaround for the critical problem update 890175 corrects is to raise your Internet and Local Internet security zone settings to high.

selected from the address book, but the subject line is empty (even if you've entered text there) and the body may contain header data.

Another flaw this update corrects involves an Outlook Account Properties

setting. (Click Tools, Accounts, Properties, and Advanced.) The Sending setting on this screen lets you break apart messages larger than a certain size. (The default setting is 60 KB). If you've enabled this feature, and if you have entered addresses in the Bcc field (blind courtesy copy field; accessed by clicking View, All Headers), recipients listed in the To and Cc fields could read the names of those you've included in the Bcc field if they copy the message to their desktop and then open them via Notepad.

This update isn't available to you through Automatic Updates unless you first install update 823353, a cumulative security update for OE mentioned in the October 2004 *PC Today*.

891711 Security Update For Windows: Vulnerability In Cursor And Icon Format Handling Could Allow Remote Code Execution (size varies). At press time, Microsoft had released this critical update for users of WinXP (all versions but SP2, which is not affected) and Win2000. Win98/Me suffer the same vulnerabilities, but updates for those OSes had not been released yet.

Two vulnerabilities are corrected by this update, and both are caused by the same root problem: improper validation of format when Windows renders icons, cursors, and animated cursors. To exploit this flaw, an attacker could create a new Web site or place a corrupt page on an existing Web site and entice victims to view the page. He also could attack through a corrupt HTML-based email, although the risk of a successful attack through email is lessened significantly if you use IE 6, have installed a recent cumulative security update for that browser, and use OE 6 or a later version or Outlook 2000 SP2 or later. If successful, the attacker could execute code on the victim's system and gain the same level of privileges on that system that the victim has.

This update, which can be uninstalled, replaces an update released with Microsoft Security Bulletin MS03-045. At press time there were no reports that this vulnerability has been exploited. **PC**

by Rachel Derowitsch

Scot's Take

Commentary by Scot Finnie



Scot Finnie is the editor of *SecurityPipeline.com*, editor at *TechWeb.com*, and author of *ScotsNewsletter.com*. He has served as managing editor for *Windows Magazine* and editor for several other computing publications. Catch up with Scot at his newsletter Web site (www.scotsnewsletter.com) or send him feedback at scot@pctoday.com.

Get Broadband

You no longer have to be a card-carrying member of the League of Early Adopters to have fast, low-cost broadband Internet access. In 2005, broadband Internet access is no longer a frivolous luxury for computer eggheads. The Internet is more than just cool or handy; it's downright useful, even a necessity.

Granted, there are huge swaths of the world, including many rural areas of the United States, where there's still no opportunity to sign-up for DSL or cable broadband access. I'll come back to that point because it's important.

But there are many people who laugh up their sleeves at the world of grown-up computer nerds who spend \$30, \$40, or even \$50 a month for broadband. I especially want to single out the people who pay \$15, \$20, or \$25 a month for dial-up access who are "saving money" by skipping more expensive broadband access. That's engaging in the sport of self-denial, and the result is a form of stinginess sometimes described as being penny-wise and pound-foolish.

The personal computer started to gain hold in the early 1980s, almost 25 years ago. In all that time, thousands of different types of applications have been devised to work with personal computers. But even word processing—the original Who's-Your-Daddy? of killer apps—and spreadsheets pale by comparison with Web browsing and email. The Internet isn't a killer app, it is personal computing in the 21st century.

So, why is it that millions of Americans who can afford computers and have broadband available to them instantly gratify themselves with fast food (how many times a week?) but are yet unwilling to feed their minds? Why are they unwilling to pay a few bucks a month to give their kids a leg up on something that is reshaping the way people interface in business, academia, government, and the home?

When I was a little kid, an old friend of my parents gave me a book that my

family called "The Answer Book," which was filled with the answers to something like 100 common technology-related questions that kids ask about how things work, like telephones, trains, airplanes, rockets, and so on. I can remember being awed by having all those answers whenever I wanted them (clearly, an unwitting future geek). I read the book over and over again, and I remember the feeling it gave me—that I could satisfy my curiosity at a whim. It was a feeling I didn't have again until about 30 years later in 1996, the day they installed the first cable modem in my home. The Internet is the perfect answer book. It may not give you the last word, the first word, or the most definitive word, but within seconds you can find out something about almost anything you can think of. It may sound trivial, even toy-like when you put it that way, but it's not. And you don't get that feeling with dial-up, because the effort to dial prevents you from jumping on at a whim.

Denial!

Save a little money with dial-up or no Internet access at all and you deny yourself the ability to save time, travel costs, hassle, and money by researching products on the Internet, finding the lowest prices, and having your purchases delivered to your home. Fast, always-on connections make it easy to manage ongoing prescription-drug purchases on a 90-day basis from a Web site instead of 30 days in the drug store. Many health plans make this possible, and at considerable savings on ever-more-expensive drugs. These tools can also be used to make it possible for people to help manage prescriptions for elderly family members who may have trouble remembering to do it. While the Internet shouldn't be a replacement for developing library skills, kids are increasingly turning to the Internet for light research of school work, and households that lack this medium for research—at the same time that many "better" public

schools seem to be piling on the homework every night—could be dealing their children a serious educational setback.

The Internet's many advantages are far too numerous for me to itemize in just a couple of pages in my favorite magazine, but let me put this in financial terms: Broadband Internet can save you money in ways many people who haven't tried it don't realize. Companies like Skype and Vonage let you use your broadband connection to make long-distance calls at much-reduced rates. Many cable companies, including Cox, Comcast, and Optimum Online, let you use their cable broadband connection (in some regions) to entirely replace your telephone service at significant savings.

My 73-year-old mother did this a few years back. I thought she was nuts. (Some nerd I am.) But she's been happy with her service, and saving money ever since. That alone almost covers the cost of her Cox cable Internet service. That and the fact that she dropped her \$21.95 AOL account (which would now be costing her \$23.90 per month). She found a way to make broadband pay for itself. You can, too. You just have to make it a priority. When you do, you'll find that the rewards are worth the effort.

For many PC Today readers, I'd expect that this effort might be needed less for yourselves than for friends and family members who may be resistant. Hopefully something here will be useful to you in helping to convince them to stop denying themselves the Internet's advantages. People resisted books, medicine, electricity, steam-powered trains, automobiles, radio, movies, airplanes, and television, too. We're still at that point with broadband Internet.

Demand It

So, what about the millions of people who don't have access to broadband, don't have a computer, or can't afford broadband? The answer to that question should be obvious to business and government. The first step is to stop viewing broadband Internet access as a luxury or a privilege for the well off, and start looking at it as a basic service that should be available to everyone.



Consider it an essential utility, like electricity or telephone service.

People who can't afford computers should be given them by companies such as Apple, Dell, Gateway, HP, Intel, and so on. Component-makers and software providers, such as Microsoft, should also donate their wares to this effort. It should be part of civic duty. And come on, after all, this will almost certainly help educate people who will in turn buy computers later in life. It's a no-brainer. By the same token, people who can't afford DSL or cable should be given some form of this service by large broadband providers, such as Verizon, Comcast, SBC, Cox, and the rest. Perhaps a lower-cost satellite-Internet service should be made available to those outside of the reach of DSL and broadband. It's hard to believe that U.S. companies have not really done this on their own in any concerted way, or that our government has done nothing to foster this approach.

Finding a way to extend broadband access to the millions of people in the United States and elsewhere who are well beyond the "last mile" is a much tougher proposition. There are huge infrastructural costs involved with building-out cable and copper/fiberoptic connections to dwellings in less-populated rural areas. The reality is that building-out cabled connections will take years, and the

companies involved might never see a profit on those efforts because the numbers of potential new customers, and therefore the revenue they represent, will be the light end of the see-saw for a long, long time to come.

When Eisenhower returned from World War II, having experienced firsthand the advantages of Germany's Autobahn, he helped drive the effort to build America's interstate road system. State and federal government had been building key roadways for years. California's Pacific Coast Highway, for example, was completed in 1937 after 18 years of construction. But during the 1950s and 1960s, large interstate building was a large federal undertaking. And it's that sort of effort we must demand from our federal and state governments if we expect to leave no one behind in extending broadband Internet access to all.

To date, regardless of the party in power, our government has missed the boat on bridging the digital divide. You don't have to be a computer geek to get it, either. It's up to all of us to ensure that our state and federal representatives get the message. More than likely, our tax dollars will be required to help pay to connect everyone to the broadband Internet. To improve the education of our children and the quality of life for all, it will be money well spent. **PCT**

Windows Warfare

Commentary by Christian Perry

Christian Perry is a long-time contributor to Smart Computing magazine and its sister publications, the Smart Computing Learning Series (no longer in print), and the Smart Computing Reference Series. Please send your feedback to christian@pctoday.com.

Don't Let Wardriving Expose Your Wireless Network

On a blustery winter evening, Derek slides into his black Accord, sets his laptop case on the passenger seat, and heads toward the highway. Ten minutes later, he veers off an exit, pulls into a McDonald's parking lot, and begins to set up his equipment for a thrilling evening of breaking into wireless networks.

First, Derek removes his Dell laptop from its case, plugs in his Oronoco network adapter, attaches a high-gain antenna, turns on the laptop, and fires up his Network Stumbler software. Carefully setting the laptop back on the passenger seat, Derek leaves the lot and drives into the nearest, congested residential neighborhood.

Driving slow but not quite slow enough to warrant attention, Derek scans the neighborhood; lending an occasional eye to the laptop screen. A few blocks into the area, he spies incredible signal strength coming from a nearby wireless network, so he parks between other cars on the street and kills his engine. He checks the available wireless network connections recognized by his equipment and sees six nearby networks, one of them named "Linksys." Derek selects this network, uses "admin" for the username and password, and spends the next hour rifling through the files and other contents of the helpless network.

Drive & Detect

If you think these types of activities are limited to a few cracker-types here and there, you're sorely mistaken. Today's wireless technologies give crackers plenty of opportunity for invading unprotected networks, and these opportunities will only increase as more home and business users continue to switch their wired networks to wireless.

The threat is tied to a wildly popular activity called wardriving, which is the practice of driving around with a laptop or PDA and discovering wireless networks. Wardriving borrows its name from war dialers, programs that call phone numbers in long successions until they find numbers that can connect one computer to another. Wardriving had just a small crowd of participants a few years ago, but now thousands of people across the globe participate, collectively joining in the hunt for access points.

Wardriving isn't technically illegal, nor is it usually harmful. If you're the type who enjoys combing a field or beach with a metal detector, you'd probably love wardriving, which entails precisely the same type of treasure-hunt mentality. A love for technology doubles the fun, because there's nothing quite like being a mobile detective, complete with your computer-based tools close at hand.

However, wardriving doesn't always stop with the simple discovery of wireless networks. Wardrivers keep thorough track of their discovered access points and share them with other wardrivers on wardriving-dedicated Web sites, sometimes even providing specific GPS information about the locations of the networks. Again, this activity isn't illegal, and the wireless technology is working as it should: sending a signal to be received by nearby equipment. Yet, if you didn't realize wardriving existed and stumbled upon a Web site that lists your network location, you probably wouldn't be overjoyed to learn that the world knows your home or business has a wireless network.

The legal and ethical concerns grow cloudy when wardrivers find an unprotected network and actually enter it. Wardrivers who stick to the unwritten

rules of their craft don't enter networks without prior authorization, but for others, the temptation is far too great. But again, the area remains cloudy because many owners of wireless networks encourage strangers to use their wireless networks, as long as they don't consume excessive bandwidth. A curious wardriver might enter unprotected networks under the assumption that the owners don't mind if strangers use the networks; but in most cases, the opposite holds true. Ask the owner of a new access point if he minds if someone sits outside his house in a car and uses his Internet connection, and chances are pretty good that he'll erupt in nervous laughter and say, "Of course not."

Ask that same owner if he took steps to protect his wireless network and you might get a different response. But judging by the volume of unprotected networks discovered by wardrivers, most network owners really should just laugh and say, "Of course not."

For those who do try to protect their networks, malicious wardrivers can circumvent basic security using basic tools available on the Web. For example, if our aforementioned Derek encountered a network protected by an encrypted key, he could simply run AirSnort in either Windows or Linux to monitor packets traveling across the wireless network. When the software collects enough packets, Derek would eventually have enough information to crack the encryption key. Although this could take weeks, the software saves the information, so Derek can simply return to the area each night, until he cracks the key.

When he obtains access to the network, he'll have free reign of any of the network's resources, as well as any Internet connection associated with the network. When Derek's finished pilfering the network, he might chalk a symbol on the curb, wall, or sidewalk in front of the network location to alert other wardrivers (or warwalkers) that there's an open network nearby.

Pour Sugar In The Virtual Tank

You risk plenty when you leave your wireless network unprotected or when



you improperly protect it. If someone infiltrates your network, they'll have unfettered access to your files and software and can steal anything they see. Worse, someone could use your Internet connection to perform illegal activities, such as downloading illegal materials, sending spam to other users, or even distributing viruses and worms.

The good news is that securing your wireless access point is not hard work, nor is maintaining that security. Because an access point is designed to broadcast its signal far-and-wide, to accommodate computers throughout your home or business, it's entirely possible that it will also broadcast that signal beyond the walls. This isn't a bad side-effect of the technology, so you should expect it and work with it to keep your network humming efficiently and safely.

Although wireless equipment varies between manufacturers and products, some general security tips apply to most access points. For starters, never use the default SSID (Service Set Identifier) included with your hardware. Crackers know that when they see a default SSID, they can easily enter the network using the default username and password. Create your SSID using a unique name and change it every few months, so that if crackers did manage to infiltrate your network, they'll need to start over again.

After you create your SSID, turn off the option for broadcasting it. Note that the option for enabling or disabling the SSID broadcast might not necessarily appear on the same screen where you create the SSID.

Next, make sure you enable 128-bit WEP encryption, or 256-bit WEP if your hardware supports it. Although WEP will initially keep a cracker out, crackers can use packet-sniffing software to eventually discover the encryption key, so change the key often. The software utilities included with most wireless devices let you store multiple WEP keys, so you can enter more than one key and simply click once in the utility to change it. Of course, you'll need to change the key on all of the other computers on your network, too.

You should also enable MAC address filtering. Using this feature, you can authorize specific computers to connect to the access point, which can prevent a cracker from entering your network using a random MAC address. Take your time when configuring MAC address filtering, because if you clone an address from another computer on your network, you might lose connectivity on the computer that's attached to the access point. Read your access point's manual to learn how to properly configure this option.

These steps should make your wireless network impenetrable to all but the most-determined crackers, and unless you're storing national secrets on your computer or gave someone a reason for revenge, you probably won't encounter any of those. But chances are good that your network will encounter a wardriver in the future, especially as the practice grows ever more widespread.

Wardrivers boast that they can now discover hundreds of access points during each drive, compared to maybe 10 or 20 only two years ago. Wireless equipment is so cheap and reliable that consumers and businesses are moving in hoards to the technology, but due to ignorance and laziness, much of that equipment remains unprotected. Don't let your equipment, along with your personal information, fall in that category. **PCT**

Technophile

Commentary by Serdar Yegulalp



Serdar Yegulalp runs the Windows 2000 Power Users Web site (www.win2kpowerusers.com) and authors the weekly Windows 2000 Power Users Newsletter. Serdar was a regular contributor to Windows Magazine and served as Senior Technology Editor of Winmag.com. Serdar's most recent book is "Windows Server Undocumented Solutions: Beyond The Knowledge Base." You can email your feedback to serdar@pctoday.com.

What If Microsoft Windows Were Free?

I was in Best Buy the other day and noticed the price tags on the sealed, boxed copies of Windows on the shelf. As strange as this sounds, I don't think I've ever bought a copy of Windows off the shelf: It has always been a preinstall, or something I got through one of Microsoft's many developer programs. Right across from Windows were boxed copies of SUSE Linux, one of the commercial Linux distributions, selling for somewhat less. At that point I wondered: "What if Microsoft just decided to give Windows away?"

Let's start with that assumption. What if Microsoft decided to make Windows XP Home Edition a free product? Microsoft would still charge money for Windows XP Professional and its server products, but the Home Edition would be free to consumers indefinitely, including upgrades, hotfixes, and service packs.

It's a tempting idea, isn't it? And the more I thought about it, the more I realized it made a crazy-kind of sense.

Absolutely Free

Here's what I had in mind. Microsoft's offering would be the existing version of WinXP Home Edition Service Pack 2, not diddled with, crippled, or changed in any way. Well, there could be a few changes. For example, Microsoft could do away with Product Activation because it would serve no purpose in this edition of Windows, and in doing so, Microsoft would ease that much of the strain on its activation servers and network bandwidth. PC manufacturers might still pay a nominal fee for the privilege of including Windows with a system, but then again, it might just be easier for Microsoft to waive activation in that case, as well.

In short—and maybe this is a bad comparison but it's the best one that comes to mind—Windows would become as readily available and as ubiquitous to users as AOL installation CDs (but with no fees that kick in after two months). It could even be distributed in the same way: as promotional giveaways or magazine blow-ins. Yes, Windows is installed on something like 90% of the computers out there, but the idea is to make it available for free to those people who don't have the OS or who are still struggling with older versions of Windows.

Microsoft could even begin distributing Windows in new ways. The file-sharing system BitTorrent for instance, which gets faster and more powerful as more people download a particular



file, could be used to put ISO images of Windows in people's hands even more quickly than a simple download from a Web server. This would take some of the burden of actually distributing Windows off Microsoft's back.

Motives & Means

Why would Microsoft be compelled to do this?

One reason is the growing pressure from the free-software community for Microsoft to either change its ways or lose its audience. This includes but isn't limited to Linux, because there are other free OSes that have come about in the last 10 years, such as FreeBSD (www.freebsd.org), but the Linux community is one of the largest and most visible proponents of this notion. It wants to win people over and make them move away from Windows, or better yet, make Windows into a less-competitive product. (Granted there are plenty of people who think there is room for the two programs to coexist, and I'm one of those people, but this is a hypothetical argument.)

Another reason would be the simple fact that Microsoft's main profit stream does not come from Windows itself but from its supporting technologies such as Microsoft Office and its server programs. If Windows were a free product, there would be that much less incentive to pirate not only Windows (because it would be essentially impossible to do so), but also Microsoft's other applications. Instead of spending a hundred or so bucks on Windows and then another couple of hundred on Office, you could simply buy Office (legitimately) with the money you saved: because Windows would be free.

In this sense, a free version of Windows would, ironically, become a great competitive measure because it suddenly becomes that much easier to run Windows-compatible software. And there's a great deal of excellent free software available for Windows, so it wouldn't be hard to build a whole complement of applications without spending a dime.

Microsoft is also facing pressure because Windows is selling, legitimately and illegitimately, for varying prices throughout the world. The copies that cost the least may come to be the ones that sell the fastest, and to the broadest audience. It's a wholly global economy now, and it has been for some time. For Microsoft to pretend it isn't, would be just plain foolish.

... Or Maybe Not

And now I'm going to play devil's advocate and demolish my own argument.

As tempting as it might be for Microsoft to make WinXP Home Edition available for free, why does it make even more sense *not* to?

Developing Windows costs money. There is no way to get around this. People who put time and effort into a project of that big of a scope, especially for a profit-driven company, expect to be paid, and the only way to do that is to sell a product. The cost of developing Windows isn't something that other Microsoft product sales can directly absorb, especially not with how the company restructured itself so its OS division is all the more discrete from its applications division.

Some people may view making Windows a free product as an anti-competitive measure. Microsoft has had more than enough problems with antitrust suits in the past, and the last thing it wants to do is open itself up to more potshots of this variety. I have the feeling the only reason Microsoft felt safe putting out a free spyware scanner (which is by all accounts a very good product) is because there were already a number of other free products in the same realm. By making Windows free, Microsoft might be accused of trying to fatally undercut its competition. I don't know that I find such a thing entirely plausible, but it's not impossible to see another company firing off a lawsuit for that reason.

Making Windows free will not provide Microsoft with a genuine incentive to improve the program. This is sort of a corollary of the first counterargument. The people who develop and

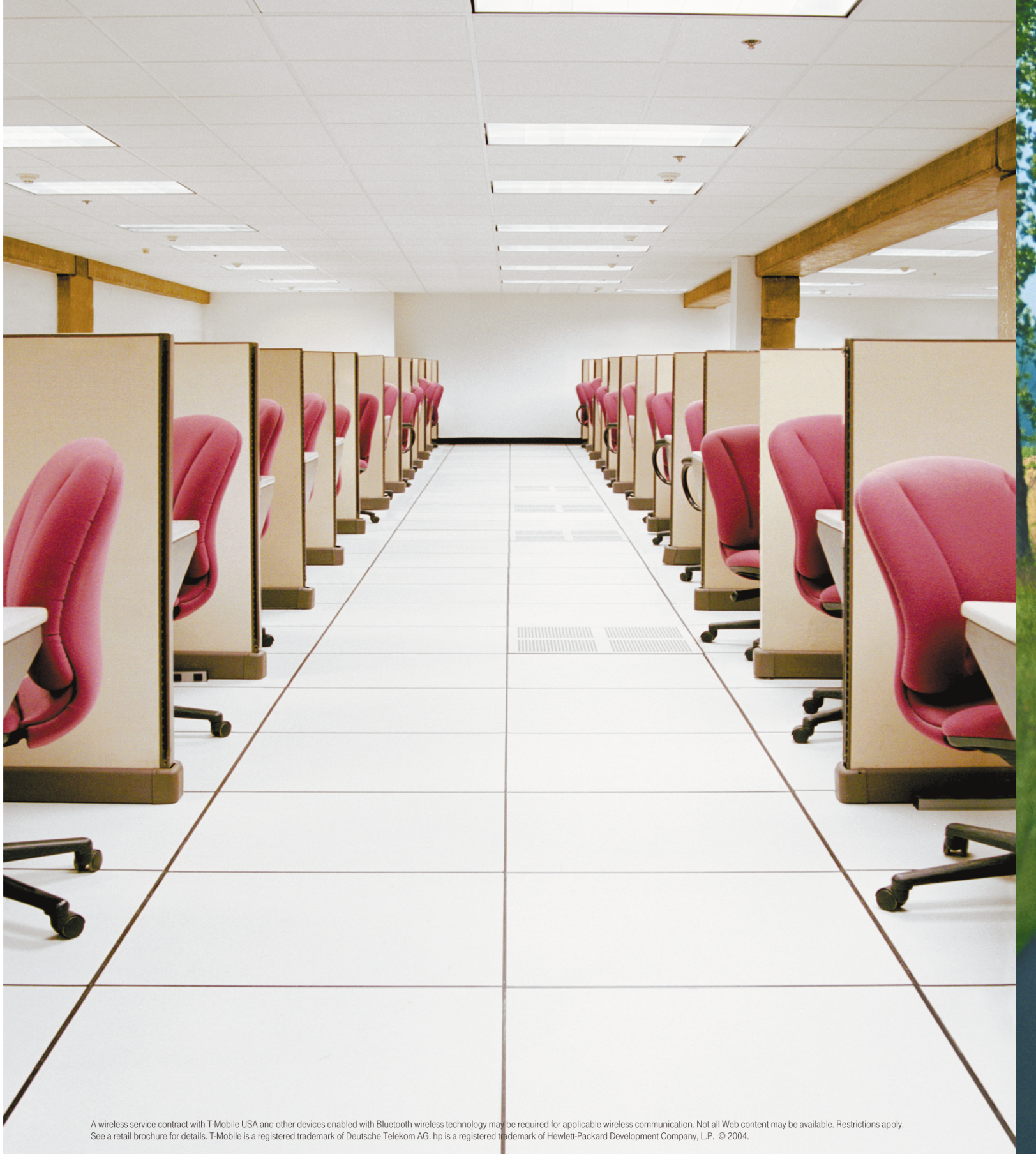
maintain free products tend to do so out of fairly selfless motives; their software's a labor of love. Windows, great as it may be, is anything but. Unless its development were passed into the hands of people who saw it as a labor of love and not as a product that makes money—which is a hard thing to do “artificially”—free Windows would stagnate.

Giving Windows away would cause Microsoft to lose face. Don't underestimate the importance of having a stiff upper lip in any industry, especially not the cutthroat world of the PC with its typically razor-thin profit margins. If Microsoft decided the only way to keep Windows popular was to *give* it away, that would be a sign of desperation and not confidence.

So, maybe Windows won't become a freebie. I don't doubt for a second that Windows (and Microsoft) will need to change drastically in the years to come. The pressure has been on for some time in the form of antitrust legislation, competition from free and open-source software, the ever-increasing appeal of the Macintosh, and so on. Even if Microsoft never gives Windows away for free, the company might end up entertaining options that are just as surprising.

What we might see are more subdivided versions of Windows at different price points. One of the more interesting projects in the works is a scaled-down version of Windows named Windows XP Starter Edition, designed for beginning users in developing countries. (The first edition is being released in Thailand.) It's low in cost (about \$30 or so) and is designed for installation on equally inexpensive low-powered PCs, and it only runs a few Desktop applications at a time. Not for power users, but most people aren't.

Even if Microsoft never winds up making Windows into something stuck to a card in the back of a magazine, it will continue to be everywhere in some form; maybe not in the form we're used to, but there nonetheless. And if you've been with Windows from the beginning, can you honestly say you expected what you see in Windows today? Me neither. In a good way, that is. **PCT**

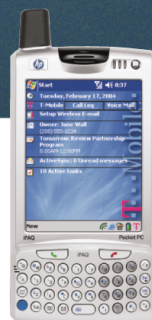


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Commentary by Dave Methvin



Dave Methvin is Chief Technology Officer of PC Pitstop, a free site that automatically diagnoses and fixes common PC problems. Contact Dave at dave@pctoday.com.

Emergency Repair Kit Revisited

If reader mail and questions are any indication, my most popular column has been the November 2004 column on building the Emergency Repair Kit for those unfortunate PC breakdowns. With that in mind, I'll be using this month's column to answer reader questions about the kit, suggest a few more additions, and give some more attention to one neglected utility in the original kit, called Process Explorer.

Some of you who have already built a kit of your own may have noticed a quirk about installing onto removable media. If you install a utility such as Ad-aware directly onto a USB flash memory key, the computer you are using will get an Add/Remove Programs entry for Ad-aware. That entry will point to the flash memory key; let's say it is on the H drive. If you try to uninstall Ad-aware, Windows won't be able to find the

uninstaller unless the memory key is plugged into the system and it's been assigned to the same drive letter. Once installed, most applications will run fine when run directly from the memory key, so there isn't a real need for an uninstall entry. You may prefer to take out the Add/Remove entry completely, which you can do on the Add/Remove tab of the free TweakUI utility (www.microsoft.com/windowsxp/downloads/powertoys/xppowertoys.msp if you're running Windows XP, www.microsoft.com/ntworkstation/downloads/powertoys/networking/nttweakui.asp for any other version).

Norton Registry Restorer

In the original column, I pointed you to a Norton download page that had quite a few links on it (securityresponse.symantec.com/avcenter/tools/list.html). Although all of those free tools may be useful at one time or another for a specific infestation, the one that should definitely be in your toolkit is the one on that page called "Tool to reset shell-
opencommand Registry keys."

Some viruses will hook themselves into the Registry in a way that allows their virus installer to run any time an executable or other command file is started. This Symantec tool eliminates the hook the virus has installed. In particular, it resets the file associations for EXE, BAT, COM, PIF, and SCR files so they are back to Windows defaults. It also



resets restrictions that may prevent you from using Regedit, the Registry editor. Few legitimate programs should be changing these settings, so it's a pretty safe fix to use if you suspect that malware is using this trick.

Process Explorer

All the utilities at SysInternals.com are great, especially if you're interested in the technical or programming aspects of Windows. One of the files I recommended for the original kit was Process Explorer. Since then, a newer version (8.6) has come out with even more features (www.sysinternals.com/ntw2k/freeware/procexp.shtml), and it's still a free download.

So why is Process Explorer so cool? Well, it's often tough to investigate the inner workings of spyware, viruses, or just weird programs that you have running in the background. Windows Task Manager can give you a bit of information such as its CPU load and memory usage, but that doesn't tell you what it's doing and where it is doing it.

Process Explorer can tell you lots about what is going on inside a process. For example, it can tell you the files, Registry keys, or other system resources the process has open, what DLLs it has loaded, the vendor and description from the main EXE file or any of the DLLs, whether the files are cryptographically signed, and the command line that started the process. That's just a short list.

In addition to peering into processes, you can also kill any processes that you think are up to no good. It's also possible to change the priority of a process or suspend it from running temporarily. All of those things should be done with care; you probably don't want to use them unless you're certain the process is evil. Really, those are about the only functions of Process Explorer that might get you into trouble. The rest of the program is about looking, and it doesn't hurt to look.

Start Exploring

When you start Process Explorer, you'll see a two-pane display with a list of running processes on top. If you open or close a program, you'll see its display

Utility Of The Month: Motherboard Monitor

True to their word, after purchasing Giant Antispyware in December 2004, Microsoft opened 2005 by releasing a beta version of the Microsoft Antispyware based on Giant's product. Microsoft hasn't announced their future plans for Antispyware, but at the moment it's free to download at www.microsoft.com/athome/security/spyware/.

The other free tool released by Microsoft is the Malicious Software Removal Tool, which comes in two flavors. For use in the Repair Kit, the downloadable version is most convenient; you can get it at support.microsoft.com/?kbid=890830 and read more about it. If you're stuck without your repair kit, an online version is also available at www.microsoft.com/security/malwareremove/, as well.

Both products are free, and that's reason enough to add them to your Repair Kit. ■

update and briefly highlight the program that's coming or going. Click one of the programs, and the lower pane will show details about that process. The View menu lets you choose what is displayed in the lower pane, either DLLs or handles (files or Registry keys, for example).

Let me give you a few examples of the power of Process Explorer. Perhaps you've been in the situation where you're trying to delete a particular file but you keep getting "file is in use" messages. "Great," you ask the dialog on the screen, "but *which* program is using the file?" That dialog won't give you an answer, but Process Explorer will. Just click its Find, Handle menu and type in the name of the file in use. You'll get a list of processes that have the file open.

Perhaps you are fighting a virus or spyware infestation that is fighting back. As soon as you delete an entry from the startup location in the Registry, some program is putting it back. But which program? Use Process Explorer's Find, Handle dialog to search for the name of the Registry key, and it will tell you if any process has the key open. (You can also use the SysInternals.com RegMon utility to narrow down the list of suspects; that Web site just keeps on giving!)

Here's another handy function. Sometimes malware will plant itself as a DLL in a crowded directory, such as the Windows System directory, and then attach itself to a legitimate and frequently used program, such as Internet Explorer, or even to a program

like RunDLL32.exe. If you select a program in the upper pane of Process Explorer, you can view the list of DLLs it has loaded in the lower pane. If you're not sure what a DLL or EXE file might be, right-click it and select the Google option to search for the file name on the Internet.

Right-click any process and select Properties, and you'll find a mother lode of information. The Strings tab shows a list of the strings from inside the program. You can see a list of Internet connections the process is using on the TCP/IP tab. The Image tab shows the creator of the file and whether it is cryptographically signed; a file with no vendor information here is always highly suspect. All of these can give you an idea of what the program is doing and who it may be talking to over the Internet.

There are at least a dozen other nice touches in Process Explorer. In the Options menu, you can choose to use Process Explorer in place of Task Manager. That menu will also give you the lowdown on what the color coding means and let you change the color schemes to your liking. The toolbar area includes a graph of the system's CPU load, and it can minimize to the system tray with a CPU load indicator. There's even an option to make the window partially transparent so you can see both Process Explorer and your applications on the screen at once. The more you explore in Process Explorer, the more incredible features you'll find. **PCT**

This Old Desktop

Commentary by Alfred Poor



If you have questions about Windows 3.x/95/98, or if you have a favorite tip, utility, or resource that you'd like to share, send a message to Alfred at alfred@pctoday.com.

Due to the volume of mail that he receives, he can't promise to answer all messages, but he does his best.

The One-Stop Configuration Editor

Starting with Windows 95, Microsoft began to rely on the system Registry to track configuration settings for the applications and hardware that are installed on a computer. The Win95 Registry is actually a pair of binary files—System.dat and User.dat—that act as a database of configuration settings. (Later versions of Windows use five separate files for Registry data.) Because these are binary files, you must use a special utility to edit their contents; Microsoft includes the REGEDIT command starting with Win95.

Prior to Win95, these configuration tasks were handled by a pair of text files: Win.ini and System.ini. You can edit these with any text file editor, such as Notepad. The problem with relying on these INI files is that they are limited to 64KB. Although this was sufficient for smaller systems with relatively few applications and components, the demands of later versions of Windows soon outgrew this limitation. All the same, Win.ini and System.ini are still present in Windows XP installations, in order to provide backward compatibility with early Windows applications.

Fast Track To Edit

Although these are simple text files, it can be a nuisance trying to find them to edit. By default, they are located in the WINDOWS directory of the system's C: drive. There are other important configuration files—the boot files Autoexec.bat and Config.sys—which are located in the root directory of the C: drive. If you want to view or edit these files, you have to open them one at a time with Notepad or some other editor.

Fortunately, Microsoft made it

easier to view and edit these files by creating a special version of Notepad that opens all four of these configuration files at one time. This program is called Sysedit, and you can call it from the File Run menu command within File Manager in Windows 3.x or Windows Explorer in Win95. (Sysedit is still present in WinXP, should you ever need to use it.)

When you run Sysedit, it opens all four of the configuration files in four cascaded windows, within the application window. If you're running Win3.x or Win95 on a local network, you'll also see a fifth window for the Protocol.ini file.

You'll find one key difference between the contents of these windows, depending on which version of Windows you are using. Win3.x requires real-mode drivers for devices such as CD-ROMs, so you should find entries in the Config.sys and Autoexec.bat files to support this type of hardware. Memory management is also controlled at the DOS level, so you should expect to see at



least a HIMEM entry in the Config.sys file, which allows some program code to be moved out of the lower 640KB range used by DOS. You may also find a memory manager driver, such as Emm386.sys, in the Config.sys file and some LOADHIGH entries in the Autoexec.bat file that let you load

real-mode device driver programs, such as Mouse.exe, in upper memory.

In contrast, the Config.sys and Autoexec.bat files should be completely empty for Win95 (or later versions of Windows) because virtual mode drivers and the Windows system should take care of all device and memory management tasks. If

you find entries in either of these files on a Win95 system, you should try to determine whether they are necessary; you may get better system performance if you can get rid of them.

Start Me Up

So why would you want to explore or edit these configuration files? One common reason is to track down software conflicts that can occur when programs or utilities are set to run automatically, either in DOS or Windows. Sysedit lets you look at the two files that can cause programs to run automatically. (For Win95 and later, it is also possible to have a Registry entry that will cause a program to run when Windows loads.)

Start with the Autoexec.bat file. Aside from the programs already mentioned, any command in this file could cause a program to load and run in DOS. If it is a TSR (terminate-and-stay-resident) program, it will continue to be active even after returning to the DOS prompt and executing the next line in the Autoexec.bat batch file. Examine each line to determine its function. If you want to experiment and find out what happens if you disable a given line in the file, simply type **REM** (for remark) and a space in front of the line, and then save the file and reboot your system. You can then simply remove the REM to reactivate the line.

Keep in mind that a Windows program can also be set to run automatically in the Autoexec.bat file. As described in my October 2004 column, you can use a program's file name as a parameter with the WIN command to automatically run that program when Windows loads.

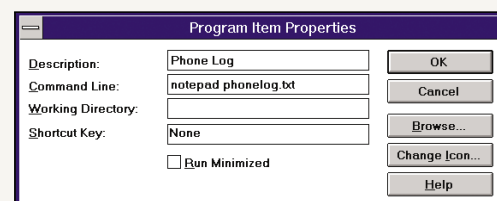
The other file that can cause programs to run automatically when Windows starts is Win.ini. The first section of the file is marked [windows], and within this section you may find lines that start with LOAD= or RUN=. If they are blank after the equals sign, then they do not load any programs. If you do find such lines with programs listed after them, however, then these programs will run when Windows loads. You can temporarily disable them by placing a semicolon (;) in front of the line, which has a similar effect to REM used in batch files. **PCT**

Stamp Your Notes

While we're on the subject of text files, here's a little-known trick. Notepad is the Windows text file editor, and it's generally thought of as a pretty-sparse utility of limited capabilities. It can only edit ASCII text files, so you can format the text with fonts or effects, such as bold or underline. And as previously mentioned, it can only handle files up to 64KB in size, after which you have to turn to more capable editors, such as WordPad. Still, it's fast and easy to use. And it has a few handy tricks up its sleeve.

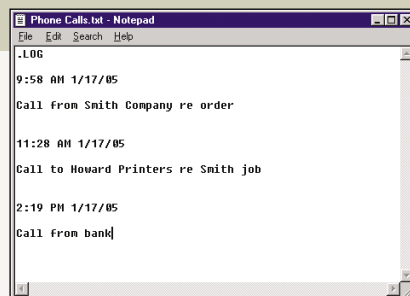
For example, if you press the F5 key while editing a file in Notepad, it will insert the date and time in your file. This can be a handy feature, but Notepad even knows how to add it to your file automatically. If you type **.LOG** as the first line in a text file, every time you then open that file with Notepad, the program will automatically add the time and date to the bottom of the file. Note that the word LOG must be in uppercase letters.

To make this feature even more useful under Win95 (or later versions), save the log text file to your Desktop. Then all you have to do is double-click the icon to open the file to make the next entry, without having to spend time in Windows Explorer trying to find the file.



You can create a new program item in Windows 3.x to make a text file that you can use to log events.

as Phone Log. For the command line, type **NOTEPAD PHONELOG.TXT**; you can choose any file name you want, but remember to give it a .TXT extension. You can leave the working directory entry blank. If you want, choose the Change Icon button to give the item a more meaningful icon; browse to Progman.exe to see a wide selection of available icons. Choose OK to close the window, and you should see a new text file item named Phone Log in the current program group. The first time you double-click this icon, Windows will offer to create a new file for you. When the file opens, type **.LOG** by itself on the first line, and then save and close the file. It will now be ready to go and will open the file with the current time and date each time you double-click the icon to open the file. ■



Putting ".LOG" in the first line causes Notepad to automatically add the time and date to your file each time it is opened.

You can create a file with almost the same convenience with Win3.x, even though it does not have a Desktop. Open a program group in Program Manager, and then choose File New. Choose Program Item, and then choose OK. Give the item a meaningful name, such

Entry-Level Windows:

The Taskbar

What does your desktop look like? Is it the kind with papers and pencils everywhere—and not one pencil with an eraser? Or is everything so carefully filed that you need a cross-referenced index to find what you need? Whichever desk sounds like yours, your computer Desktop probably looks the same way. What you need is an organizer to hold all the applications, files, and Web pages you need most often. The good news: You already have it. It's the Windows Taskbar.

In its simplest form, the Taskbar displays the date, time, and currently running applications. You can customize it to include a variety of toolbars, which allow easy access to applications, file folders, and Web pages. First, we'll take a look at the Taskbar in Windows XP, and then we'll point out some minor differences across Windows 98/Me/2000.

Taskbar Properties

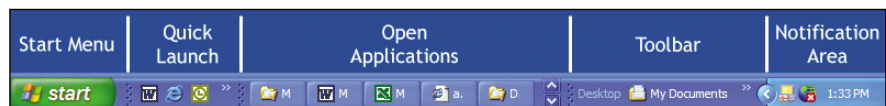
To customize the Taskbar properties, click Start and Control Panel and then double-click the Taskbar And Start Menu icon. The Taskbar And Start Menu Properties dialog box will open, giving you options to change the appearance and functionality of the Taskbar. To choose an option, click the box in front of it. To remove an option, click it again.

Taskbar appearance. Your first option is Lock The Taskbar. Keeping it locked will ensure that you don't make



accidental changes. However, the Taskbar must remain unlocked if you wish to make other customizations.

Your second option is Auto-Hide The Taskbar. Normally, the Taskbar is visible on your screen so you can view it while you run other programs. If you would like the use of your full monitor screen,



The Windows XP Taskbar is easy to customize to individual preferences. In addition to the Start menu, several open applications, and the Notification area, you can see the Quick Launch toolbar and the Desktop toolbar.

however, you can hide the Taskbar. To make the Taskbar reappear while it is hidden, drag the mouse to the edge of the screen where the Taskbar is located. The default location for the Taskbar is across the bottom of the screen. However, you can click and drag it to any side of the screen.

If you don't mind the Taskbar taking up some space, you can check the next option, Keeps The Taskbar On Top Of Other Windows. This way, you can always see the Taskbar, even if other windows are maximized or dragged over it.

The next option is Group Similar Taskbar Buttons. When you have several applications open at once, your Taskbar may scroll the corresponding buttons down to a second line. As you open more applications, you will notice

that the buttons on your Taskbar are getting smaller to make room for everything. Eventually, the buttons will be unreadable.

When this happens, you have a few options to view the applications open on your Taskbar: scroll between rows of applications, increase the height of the Taskbar, or group similar Taskbar buttons. When your Taskbar scrolls open applications to a second line, a set of arrows will automatically appear to the right of your document buttons. Click the arrows to scroll between rows. To make the Taskbar easier to read, however, you can increase its height. To do this, drag the top edge of the Taskbar to the height you choose. This will allow you to see the applications listed on the second line, but your Taskbar will now take up more space on your screen.

The cleanest option is to group similar Taskbar buttons. When you check Group Similar Taskbar Buttons on the Taskbar tab, instead of making the buttons on the Taskbar smaller, the com-

puter will sort them so that you have only one button per program. For example, if you have several Microsoft Word documents open, they will be grouped together on one Taskbar button. Click that button, and a menu of your open documents will appear. Scroll up to the document you want to view and let go of the mouse button to open the document.

The last option in the Taskbar Appearance area is Show Quick Launch. If you choose to show the Quick Launch toolbar by checking this box, shortcut buttons will appear on your Taskbar. These buttons will be smaller versions of the icons that represent each program. When you click one of the buttons, the corresponding application will open. This saves you the

time of sifting through your Start menu or Windows Explorer to find a program.

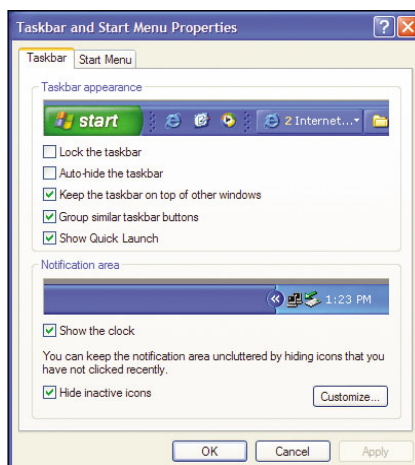
There are a couple of ways to add programs to your Quick Launch toolbar. If the program has a shortcut on the Desktop, click the icon and drag it to the Quick Launch toolbar. You can also click and drag an item from your Start menu to the toolbar. To remove any program from Quick Launch, right-click the icon on the toolbar and select Delete. This will simply remove the application from Quick Launch; it won't delete the application from your computer.

Notification area. The next options available to customize your Taskbar are in the Notification Area section of the Taskbar And Start Menu Properties dialog box. The Show The Clock checkbox allows you to choose whether or not to display the clock. If your Taskbar is already crowded with toolbars, you could choose not to show the clock. Otherwise, it will automatically appear at the end of your Taskbar.

The second checkbox enables the Hide Inactive Icons option. An application such as Microsoft Word is generally only open while you are actively using it. In the background, however, your computer is running additional programs, which may or may not be active. For example, your antivirus software is likely running whenever your computer is on but is only running *actively* while it scans something, such as an incoming email message. The icons for programs running in the background will appear on the Taskbar near the clock. Enabling this option will hide the icons for inactive background programs and can free up a considerable amount of space on the Taskbar.

Adding Toolbars

In addition to the Quick Launch toolbar that you can customize through the Taskbar And Start Menu Properties dialog box, you can choose other toolbars to appear on the Taskbar. To begin, right-click an empty area on the Taskbar. In the menu that appears, choose Toolbars for a list of the available options. To make a toolbar appear



The Windows XP Taskbar and Start Menu Properties dialog box is available through the Control Panel. To access it more quickly, right-click the Taskbar and select Properties.

on your Taskbar, simply scroll to its name and click it; to remove it, just click its name again.

The first option is the Address toolbar. This toolbar automatically links your Taskbar to your Web browser and to the folders on your computer. If you type a Web address into the Address box and click Go, your Web browser will open to the page you requested. If you type a path and click Go, Windows Explorer will automatically open the corresponding file folder.

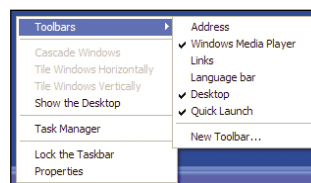
The next toolbar option is Windows Media Player. When you minimize Windows Media Player, it appears on the Taskbar as a set of player controls. The coolest feature is the Video and Visualization window, which is opened and closed by clicking the upper-right button on the toolbar. This small window shows the video or music visualization currently playing and will remain on top of all other windows.

The following option is the Links toolbar. This toolbar places Internet links onto your Taskbar. A button will appear for each link that you have bookmarked

as a favorite in your Web browser. When you click one of these buttons, your Web browser will automatically open to that page.

The Desktop toolbar places all of the icons on your desktop onto your toolbar. This can include shortcuts to both applications and specific files. If you click an application button on the Desktop toolbar, the corresponding application will open. If you click a file button, the file will open in the application in which it was created.

The last option is New Toolbar. This gives you the opportunity to choose a toolbar that is not automatically offered by WinXP. For example, if there is a particular folder of documents that you use often, you can place that folder onto your Taskbar for easy access. When you click New Toolbar, a dialog box will open. Browse until you find the folder you would like to include. Then click the folder and click OK. The location you chose will appear as its own toolbar on the Taskbar. Clicking the chevron button next to the folder name will display a pop-up menu of all the files in that folder. Simply scroll to the file you need, click the file name, and it will open.



Using the Taskbar menu in Windows XP, you can easily organize multiple windows and add toolbars to your Taskbar. To open this menu, right-click an empty area of the Taskbar.

Other Taskbar Options

There are several ways to organize the windows you have open on your desktop. Windows automatically open on top of each other. You can click back and forth between them by minimizing them one at a time. Clicking a button on the Taskbar will restore or minimize the corresponding document. However, there are also some more specific organizational options available to you through the Taskbar.

Right-click an empty area of the Taskbar to open the menu. In addition to the options we have already reviewed, there is a list of ways to organize open windows. Choosing Cascade

Windows allows you to see a small portion of each open window at all times. If you have two windows open and you wish to see them both at once, choose either Tile Windows Horizontally or Tile Windows Vertically. Both of these options will split the screen equally between your two windows; the difference is a horizontal or vertical split. You can also choose Show The Desktop, which minimizes all windows.

There are a few other commands available on the right-click Taskbar menu. You can open the Task Manager from here, which allows you to monitor all of the programs currently running on your computer. You can also open the Taskbar And Start Menu Properties dialog box from here. In addition, you can lock or unlock your Taskbar by clicking Lock The Taskbar (once to lock, again to unlock).

To change the date or time on the clock, right-click the clock instead of an empty area of the Taskbar. Adjust Date/Time will appear on the menu. Choosing that option opens the Date And Time Properties dialog box, where you can make any necessary adjustments.

Other Windows OSes

Taskbar properties and functions are primarily the same across recent versions of Windows, but there are some differences to point out between WinXP and Win98/Me/2000.

The Taskbar properties in WinMe/2000 are basically the same as those in WinXP. The most noticeable difference is the Taskbar And Start Menu Properties dialog box. In WinMe/2000, this dialog box contains fewer options for customizing the Taskbar. Your options include Always On Top, Auto Hide, and Show The Clock. And while WinXP has separate tabs in this dialog box

for Taskbar options and Start menu options, WinMe/2000 do not. Therefore, the Start menu options are also visible on the General tab in the dialog box.

Additionally, you can right-click the Taskbar and select Minimize All Windows to show the desktop. This menu does not have the option to lock the Taskbar.

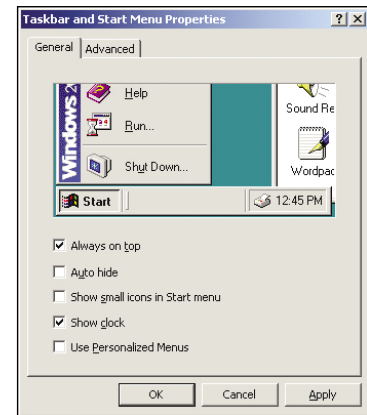
In Win98, the dialog box for modifying the Taskbar is called Taskbar Properties. It contains the same limited options for customizing the Taskbar as does WinMe/2000: Always On Top,

Auto-Hide, and Show Clock. In similar fashion, the option to show the desktop is called Minimize All Windows. However, Win98 doesn't include the Task Manager, so you won't find an option to access that feature.

A Clean Desktop

You are now ready to customize your Taskbar and keep your computer Desk-

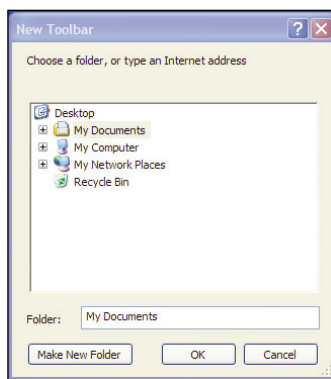
top as organized as your real Desktop could be. With all of your most-used



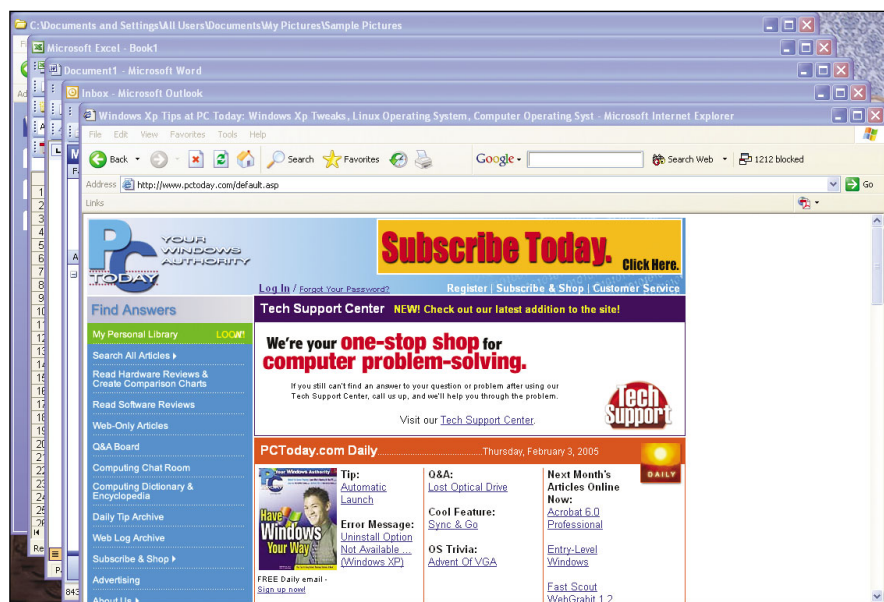
In Windows Me/2000, the Taskbar settings and Start Menu settings appear on the same General tab.

programs and files locked across your screen, you will never again have to rifle through Windows Explorer, hunting down the application you want. Need to switch from one open document to another? No shuffling required—one button click shifts the file you need to the top of the stack. Need a pencil with an eraser? There, you're on your own. **PCT**

by Liz Stefaniak



Add your own toolbar to the Windows XP Taskbar via the New Toolbar dialog box.



The Taskbar menu also offers multiple ways to organize your open applications on the Desktop. Choose Cascade Windows to arrange your open windows as they appear here.

Start-To-Finish Guide:

Uninstall Windows XP Service Pack 2



When Microsoft released Windows XP SP2 in August 2004, fans and critics of Windows hailed the update as a crucial step toward securing a product that had been plagued by vulnerabilities. Microsoft warned users that SP2's stringent security features might cause problems and even render some programs inoperable. Nevertheless, most experts considered SP2 a must-have upgrade, recommending users install SP2 and then deal with the fallout.

Nine months later, some users are still suffering from that fallout. Many

manufacturers have posted patches to programs that failed to work under SP2, and Microsoft has issued a slew of Knowledge Base articles discussing various SP2 issues. Even so, difficulties persist. Users report trouble with Internet-related programs, antivirus and firewall products, wireless products (especially those that use FireWire technology), local networks, printer connections, and more. As a result, some users are throwing up their hands in despair and saying, "No More!"

If your frustration level with SP2 has reached a peak, or if you are considering

uninstalling for other reasons, this article is for you. Here, we'll help you decide if you should uninstall SP2 and provide full instructions for its removal if you decide to proceed.

Should You Take The Plunge?

Unless you are experiencing problems with SP2, you should not uninstall it. It is a powerful ally in the fight against malicious intrusion. Additionally, depending on your selected removal method, some programs and devices may not work properly or may disappear entirely, after you remove SP2.

If you are experiencing problems with the OS, however, the situation is different. Users experiencing problems after they installed WinXP SP2 have three options. If a pre-existing problem, such as a faulty device driver, is the source of your troubles, it is often best to remove SP2 temporarily, fix the problem (for example, reinstall the driver), and then reinstall SP2. If a program or device causes conflicts with SP2 but does not appear to be corrupt, it sometimes helps to uninstall SP2, uninstall the program or device, reinstall SP2, and then reinstall the program or device after the SP2 installation. Finally, if your problems with SP2 appear to have no source, or if technical professionals have advised you there is no solution, you can uninstall SP2 permanently.

If you have not determined the cause of your problems with SP2, or if you have not yet explored alternate options to uninstalling this important update, do so before you remove it. Contact the manufacturer of products causing you trouble and visit the Microsoft Knowledge Base (support.microsoft.com) to search for articles relating to your troubles. Additionally, Microsoft's technical communities (www.microsoft.com/communities) may be of assistance. At the time of this writing, Microsoft was offering free support for registered WinXP users experiencing problems with SP2. (No end date was available at press time.) To check whether free support is still available, call Microsoft's Personal Support line at (800) 936-5700 (in the United States), press 0, and ask for technical support on WinXP SP2.

If you cannot find a solution to your problem, or if you need to remove SP2 while you resolve an issue, then forge ahead. Although none of the methods we offer in the next section should result in data loss, it is a good idea to have a full data backup (including email messages, Favorites, and other personal items), as well as access to all your program installation files, before you begin.

SP2, Be Gone!

WinXP offers four methods for removing SP2: the Add Or Remove Programs utility, manual initiation of the Windows XP Service Pack 2 Removal Wizard, the System Restore tool, and the WinXP Recovery Console. The first two are the easiest to manage and are least likely to affect other installed programs. The third method is also easy to follow, but you need to reinstall all software (and many hardware) installations performed after you installed SP2.

The fourth option requires the greatest degree of caution. In our tests, this method affected the appearance of the Start menu, including the All Programs list. (If this happens to you, reinstall WinXP and then reconstruct the All Programs list. Right-click the My Computer icon and select Explore. In Windows Explorer, locate the Start Menu folder and copy the appropriate program shortcuts to the Programs folder inside.)

After you remove SP2 using any of these methods, it is a good idea to run SFC (System File Checker) to ensure all your system files are intact. To run SFC, select Run from the Start menu, type `sfc /scannow` (note the space between `sfc` and `/`) in the Open field, and click OK. You will need your WinXP installation CD. If you experience problems after using any of the removal methods that follow, refer to the If Trouble Crops Up section later in this article.

Using Add Or Remove Programs. If you choose to uninstall WinXP SP2, and you want to use the Add Or Remove Programs utility, follow these steps:

1. Click Start and Control Panel and double-click the Add Or Remove Programs icon. (You can also click Run on the Start menu, type `appwiz.cpl` in the

Open field, and click OK.) Make sure the Show Updates checkbox is selected.

2. Select Windows XP Service Pack 2 in the Currently Installed Programs And Updates list and click the Remove button. The Windows XP Service Pack 2 Removal Wizard will start.

3. In the next dialog box that appears, click Next. WinXP will uninstall SP2 and prompt you to restart your PC when the procedure is complete.

4. Run SFC as described above. (NOTE: *Microsoft Knowledge Base article No. 875350 recommends that you run System Restore at this point. In our tests, however, performing this step rendered WinXP unable to boot properly. A technical support representative confirmed it is unnecessary.*)

Manually start the removal wizard. If the Windows XP Service Pack 2 option does not appear in the Add Or Remove Programs window, or if clicking the Remove button does not start the wizard, you can start the utility manually. This has the same result as using the Add Or Remove Programs tool.

1. Click Start and Run, type `c:\windows\%NtServicePackUninstall%\spuninst\spuninst.exe` in the Open field, and click OK. (If WinXP is not installed on your C: drive, replace `c:` with the appropriate drive letter.) The Windows XP Service Pack 2 Removal Wizard will open.

2. Click Next. WinXP will uninstall SP2 and prompt you to restart your PC.

3. Run SFC as described previously.

If the wizard does not open, and you receive a run error message stating the location is unavailable, you can locate the file manually using the Windows Search utility.

1. Click Start and Search, and in the What Do You Want To Search For pane, click All Files And Folders.

2. In the All Or Part Of The File Name field, type `spuninst.exe`.

3. Click More Advanced Options and select the Search System Folders and Search Hidden Files And Folders checkboxes. Next, click the Search button.

4. In the results list, scroll down until you find the version of `Spuninst` located inside the `\$NtServicePackUninstall%\spuninst` folder. (This is very important.)

Double-click this file to initiate the WinXP SP2 Removal Wizard.

5. Click the Next button, and WinXP will uninstall SP2 and then prompt you to restart your PC.

6. Run SFC as described previously.

System Restore.

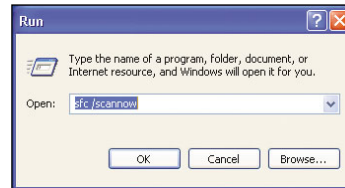
System Restore takes snapshots (called restore points) of your PC, so you can return your system to an earlier state. If you installed SP2 recently, you may be able to roll your system back to its pre-SP2 state.

1. Click Start, All Programs, Accessories, System Tools, and System Restore. If System Restore is not an available option, click Start and Run, and then type `%SystemRoot%\System32\restore\rstrui.exe` in the Open field. Click OK.

2. In the Welcome To System Restore window under To Begin, Select The Task You Want To Perform, select the Restore My Computer To An Earlier Time radio button. Click Next.

3. In the Select A Restore Point dialog box, locate the calendar and click the date you installed SP2. If you don't know the date you installed SP2, click each bold date until you locate the right one. You may need to click the caret on the left side of the calendar month to return to a previous month. If you can't find a date containing the SP2 installation, and it was several months ago, it's possible that WinXP purged the restore point. (WinXP purges its oldest restore points when it uses up the space allotted for System Restore so it can continue creating new ones.) If this is the case, you must use a different method to remove SP2.

4. The installation time and title (Installed Windows XP Service Pack 2)



After using any method to remove Windows XP Service Pack 2, it's a good idea to run SFC (System File Checker) to ensure the integrity of your system files.

will appear in the box on the right under the On This List, Click A Restore Point box. Select the line detailing the installation and click Next.

5. In the Confirm Restore Point Selection dialog box, make sure you selected the correct restore point. (If you don't, WinXP may not uninstall SP2.) If necessary, click the Back button to correct your selection. Otherwise, click Next.

6. WinXP will gather the necessary information about your system state prior to the installation of SP2, restart the computer, and perform the removal.

7. Run SFC as described previously.

Recovery Console. This is an advanced procedure you should only use if another method won't work. (For example, if your system will not start normally.) Follow these instructions explicitly, or you will corrupt your WinXP installation.

You will need administrator access to your PC and a WinXP startup disk or installation CD. Users with OEM (original equipment manufacturer) WinXP versions may not be able to use this method.

1. Insert the WinXP startup disk or installation CD and restart your computer.

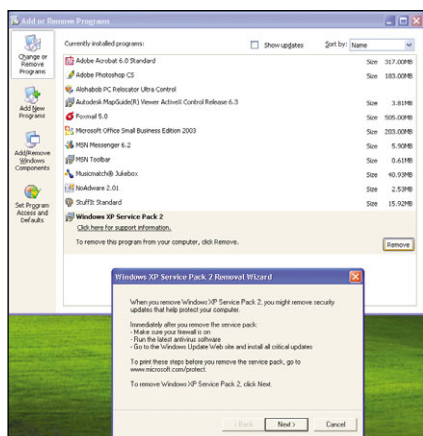
2. When you see the Press Any Key To Boot From CD message, press any key on your keyboard.

If Windows reboots normally, and you do not see this option, you must reconfigure the setup program in your PC's BIOS (Basic Input/Output System; the booting software stored on your PC) to boot from a floppy diskette or CD drive. Refer to the instructions that came with your PC and return here after you change the boot order.

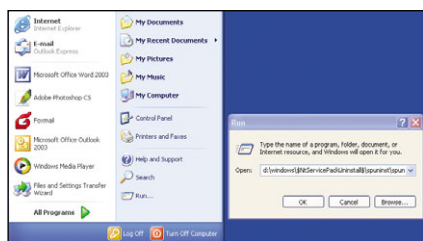
3. When you see the Welcome To Setup message, press the R key to select the Recovery Console option. When Setup displays your installation, enter the appropriate number. (This will be 1 unless you have more than one installation of WinXP.) Press ENTER.

4. If WinXP asks for an administrator password, provide it or leave the field blank. Press ENTER.

5. At the command prompt, type `cd $ntservicepackuninstall$spuninst` and press ENTER. This will give you access to the SPUNINST subdirectory.



The WinXP SP2 Removal Wizard is the easiest, and least problematic, method of removing WinXP's latest service pack.



You can also initiate the WinXP SP2 Removal Wizard from the Run dialog box on the Start menu.

6. At the next prompt, type **batch spuninst.txt** and press ENTER. Your computer will display a scrolling text file as it begins uninstalling SP2. The first dozen or so messages will be error messages. This is normal. Recovery Console will then begin copying files as part of the SP2 removal process.

7. After processing stops, remove your installation media, type **exit** at the prompt, and press ENTER.

8. Your PC should restart automatically and display the Startup menu. Select Safe Mode as the startup option. (If the PC doesn't restart, press CTRL-ALT-DELETE and select Restart from the Shut Down menu in the Windows Task Manager. When the system reboots, press the F8 key until the Startup menu appears.)

9. When your computer restarts in Safe Mode, the Desktop will be blank. Press CTRL-ALT-DELETE again to open Task Manager.

10. From within Task Manager, click the File menu and select New Task (Run

...). In the Open field, type **regedit** and then click OK.

11. When the Registry Editor opens, close Task Manager. In Registry Editor, click the plus signs (+) to navigate to the HKEY_LOCAL_MACHINE\SYSTEM\CURRENTCONTROLSET\SERVICES\RpcSs key. Select RpcSs.

12. In the right pane, right-click ObjectName and select Modify.

13. When the Edit String dialog box opens, type **LocalSystem** in the Value Data field. Click OK and restart your computer normally.

14. When WinXP restarts, use the System Restore method to ensure complete removal of SP2 from your PC.

15. Run SFC as described previously.

If Trouble Crops Up

If you experience problems after removing SP2, you can reinstall WinXP over your existing installation. You will not lose any of your existing WinXP settings or data. (If you experience problems with Microsoft Office [not unusual due to its tight integration with Windows], you should uninstall Office first, reinstall Windows, and then reinstall Office.)

If your PC boots normally, insert your WinXP installation CD. When the Welcome to Microsoft Windows XP screen appears, select Install Windows XP. At the next display, choose Upgrade from the available setup options and follow the prompts to reinstall WinXP. If your PC doesn't boot normally, reboot your PC using the WinXP installation CD as described previously in Recovery Console. However, when you see To Setup Windows Now, press ENTER. After you accept the license agreement, Setup will give you a second chance to repair WinXP. This time, accept the option. (Doing this bypasses Recovery Console and lets WinXP perform the repair.)

Final Thoughts

Although your SP2 removal may go smoothly, it is not unusual to experience minor problems. Nevertheless, with a little patience, you should soon have WinXP up and running as before. **PCT**

by Jennifer Farwell



Windows XP Service Pack 2 Features

WinXP SP2 is chock-full of new features designed to secure your system and protect your privacy. To help you locate and use these enhancements, here's a rundown of the main features.

Automatic Updates

As part of its enhanced-security initiative, Microsoft modified its Windows Update site (windowsupdate.microsoft.com). Now you can choose Express Install to automatically select all high-priority updates and install them on your PC. What's more, you can enable Automatic Updates so WinXP performs this function regularly, without requiring you to visit the Windows Update site.

By default, WinXP downloads and installs updates nightly at 3 a.m. You can modify the timing of updates and other settings by clicking the Automatic Updates link in the Security Center. To enable or disable Automatic Updates, you must utilize your WinXP administrator privileges, if you have them.

Internet Explorer Enhancements

WinXP SP2 features a number of new tools for Internet Explorer users.

Pop-up Blocker. The new Pop-up Blocker is designed to block annoying ads and content that may cause spyware or harmful programs to download to your system. It does not block pop-ups that you open, such as a link you click to display a larger version of an image.

To view Pop-up Blocker settings, open IE's Tools menu and point to Pop-up Blocker. The Pop-up Blocker is also

integrated with the new Information Bar, so you can choose to manage settings for specific Web sites on a case-by-case basis.

Information Bar. Located below the Web address field, the Information Bar



The new Windows Security Center helps you monitor the most critical security defenses. In most instances, Windows XP detects and integrates third-party firewall and antivirus software with the Security Center.

automatically notifies you when IE blocks a pop-up window, when a Web site attempts to download something to your system, and when other potentially harmful activities occur. You can click the message in the Information Bar for additional details and options related to the notice.

Add-on Manager. IE add-ons are programs that enhance the browser's features. Examples of add-ons include Adobe Acrobat Reader, stock tickers, and audio/video players. Add-ons are usually trouble-free. However, some add-ons can cause IE to crash. What's more, illicit add-ons can compromise your system without your knowledge.

To display the new Add-on Manager in IE, open the Tools menu and click Manage Add-ons. The resulting dialog box lets you choose to view the currently active add-ons or all of the add-ons installed on your PC. You can select a specific add-on and then choose options to disable, enable, or update it.

Windows Security Center

The new Windows Security Center is a one-stop shop for security settings. It helps you check the status of three lines of defense: antivirus software, automatic updates, and firewall software.

To access Security Center, click Start and Control Panel, double-click Security Center. To verify or change what WinXP monitors, click the Change The Way Security Center Alerts Me link in the left pane. The Security Center also provides links for you to manage Windows Firewall, Internet Options, and Automatic Update settings. To view or change these items, simply click the corresponding link in the Manage Security Settings For area.

Windows Firewall

Windows Firewall, formerly Internet Connection Firewall, contains added protection if your PC connects to the Internet or another network. Most notably, the firewall displays a Security Alert Notification when unsolicited network traffic attempts to access your PC.

When a Security Alert Notification displays, you can select to allow or block access if you have WinXP Administrator rights. For example, you can allow access for your instant messaging application. Based on your response, WinXP adds the program to an allowed or blocked exceptions list.

The default settings for Windows Firewall should work in most instances. However, you can configure or check Windows Firewall settings by opening the Windows Security Center from the Control Panel and clicking Windows Firewall. In the resulting dialog box that appears, you can manage attributes such as the exceptions lists and advanced features. **PCT**

by Carmen Carmack

Advanced Guide:

Windows SharePoint Services 2003



Moving to a collaborative platform such as Microsoft Windows SharePoint Services 2003 means bridging the knowledge archipelagos that often take root with corporate documents residing in multiple locations: in network accounts, on local hard drives, and in off-line storage media. Moving an organization's documents to Windows SharePoint Services 2003 presents a myriad of challenges, as users have to adapt to a new workflow and a clean slate for storing corporate documents.

Inside Windows SharePoint Services 2003

Windows SharePoint Services 2003 (which we'll refer to as SPS for the remainder of this article) is a collection of Microsoft Windows Server 2003 services rather than a distinct, separate application. You can use SPS to create team-based collaborative spaces called team sites. A team site is a secure Web site accessible via a Web browser. It can sit on an intranet or external URL.

Those who have used Web portals such as My Yahoo! or any other Web-based discussion board are going to find a comfort zone with SPS' portal-like interface. Let's take a look at SPS' features that directly influence the user experience.

Microsoft Office System 2003 integration. When Microsoft launched Office System 2003 in the fall of 2003, SPS integration was a part of the Office suite's many new features. Users recognize the Office product family for its flagship

Desktop suite and other applications, such as Visio and Project, but Microsoft's inclusion of SPS integration rounds out the Office line by offering a collaborative Web platform.

One example of SPS-Office integration is the Document Workspace feature. The Document Workspace offers a shared online space for collaboration on Office documents stored on an SPS team site. The Shared Workspace Task Pane offers an interface for common collaborative tasks, including document status, a list of members authorized to access the shared document, tasks, documents, links, and document information.

Document collaboration. SPS brings document collaboration to the user desktop as part of the Microsoft Office System 2003. With suitable user rights, SPS users can collaborate on any document in a team site's document libraries.

Document versioning. SPS team site document libraries include the option of generating versions for each document in their domain. The Document Library General Settings include creating a backup copy or a version of the document.

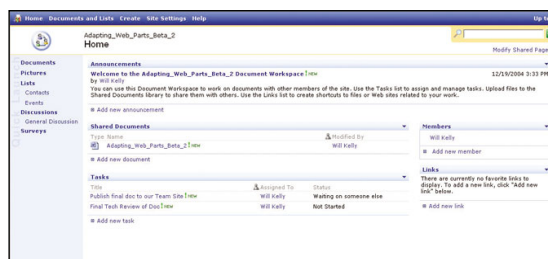
Browser customization. SPS team sites are customizable via a Web browser for users with the appropriate rights. Users can customize their team site to the way they want to work rather than enduring the same static Web site experience as everybody else on the team. The Modify Shared Page menu is available for users with suitable privileges in the right-hand corner of a team site home page.

From the Modify Shared Page menu, users have the option to add Web Parts to the team site. Web Parts are interactive SPS add-ins that provide specific functionality not available in SPS out-of-the-box. The Design This Page option opens a design view of the team site home page where you can rearrange the major elements of the page by dragging and dropping. The Modify Shared Web Parts option lets you modify the design of Announcements, Events, Site Image, and Links appearing on the team site home page.

Migrating Users & Documents To SPS

Preparing your organization for moving to SPS needs to happen on multiple levels including staff, communications, corporate documents, and technical infrastructure.

Moving communications to SPS means potentially altering typical project communications such as email. For example, moving the project communications of a traditionally email-heavy organization to an SPS discussion board offers an added granularity to project



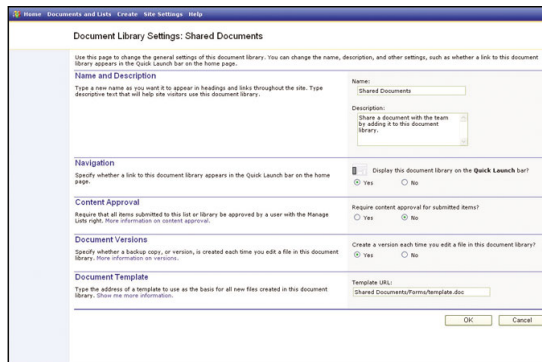
A document workspace acts as a home page for a document stored on your SharePoint Services team site offering a number of collaboration management tools.

communications because everybody involved will be able to track discussion board conversations much like Microsoft Outlook 2003's Conversation view, except that SPS stores a conversation thread in one central location on the SPS server.

Decide on SPS user roles and privileges. User roles and privileges secure all content and communications residing on an SPS team site. Interacting via SPS is far from a free-for-all and is often a drastic change from how users previously interacted on corporate intranet and network drives. Some users may fall right into line, while others may buck at the new restrictions placed on their corporate information handling. Here are the SPS user roles:

- The Guest user can only view selected site content as defined by the site administrator. Users with Guest privileges don't have access to the entire SPS team site. Guest privileges are ideal for users outside the team who need to view selected site content.
- The Reader user has view-only access to SPS site lists and document libraries. The Reader privilege is ideal for users outside the project team requiring a view of very select site content.
- The Contributor user can create and manage personal views. This role is ideal for project team members needing access to the SPS team site on a regular basis.
- The Web Designer user can customize an SPS team site using Microsoft Office FrontPage 2003. The Web Designer role can oversee the design of multiple SPS team sites.
- The Administrator user has complete control over the entire SPS team site. A project manager, team leader, or other operational manager should be in the SPS team site administrator role.

Decide on SPS team site design and development. There are two camps of thought regarding SPS team site design and development. One favors users having control over the design and development of their SPS team sites. Decentralizing design and development puts the



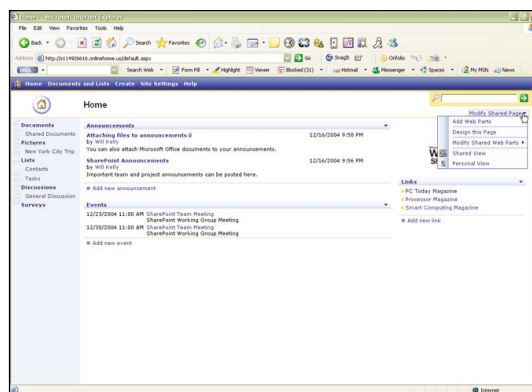
The Document Library General Settings governs document versioning plus other document library management features.

work into the hands of the users, which can have mixed results. Users just have to be fluent in FrontPage 2003 and have Web Designer privileges to develop new SPS team sites.

The other camp favors centralized design and development of SPS team sites. This option means that SPS team site development and management would fall on the IT department or other qualified group. Centralization of site design and development means more responsibility for a group. In addition, user collaboration could be stifled because centralized development can mean a loss of control, with inevitable time lags between the time of the user's request for an SPS team site change and the time the change occurs.

Choose a pilot group for SPS. As with any other deployment, a pilot is a necessity for deploying SPS. It's prudent to pick a business group within your organization and use it as a pilot test for SPS.

Use the pilot to work on technical issues but also to work out user transition issues. Although collaboration tools might be old hat to some more-savvy



The Modify Shared Page menu enables users with the Contributor privilege to customize their SharePoint TeamSite views and add new Web Parts.

users, the introduction of SPS into a business unit may disrupt and alter a workflow that has been in place for some time.

Another option is to choose a pilot project for SPS, which means taking a company project and creating a supporting SPS team site for the project.

Embrace the altered workflow. The introduction of an SPS team site into a work group is going to change the way that staff works. While Web-based applications are second nature to some users, the interruption to established business workflow may be uncomfortable to some.

Some workers embrace such change; other workers rail at such change. When the introduction of an SPS team site alters workflow, our best advice is to make sure you document the new workflow and offer ad hoc or formal training about the new or altered workflow to all users who desire it.

Cull through your existing documentation library. Word documents, PowerPoint presentations, and Excel spreadsheets are the fuel beneath many large and small organizational projects. Some documents may exist on shared network drives while others may roost in local hard drives and offline media.

Reinforce the help desk with SPS expertise. Users moving from traditional intranet and network environments are going to have questions as they learn to use SPS environment. Reinforcing your help desk with contract help knowledgeable about SPS is a prudent move during the migration.

Collaborating With SPS: We Can All Get Along

The efforts to migrate and get users up and running on an SPS team site for the first time can potentially rival the actual technology deployment in terms of level of effort by deployment staff. With these efforts, though, and with patience for the adaptation process, the deployment will succeed. **PCT**

by Will Kelly

Outside The Box:

Factiva iWorks

It's 4:30 p.m. on a Friday afternoon, and you're trying to prepare a report for a Monday morning meeting. You need information on a particular company, a headline-maker from a few months ago. You try the News search feature of the Google and Yahoo! search engines, but they don't go back far enough.

Google and AltaVista's main search engines turn up a few hits, but the links are no longer valid or they transport you to a proprietary site. The news you're looking for wasn't very flattering, so the company didn't prepare a press release. How can you find what you need without sifting through Web sites until midnight?

Enter Factiva, the progeny of news giants Dow Jones and Reuters. Factiva is a subscription-based information service that gives you access to 300 million news documents, 1.5 million news images, and more than 30,000 company reports. With Factiva, you have the news-gathering power of millions of documents (60% of which are not available on the free Web) at your fingertips.

To make Factiva's universe of information even more accessible, the company



partners with Microsoft to offer Factiva iWorks, a version of Factiva tailored especially for knowledge workers in an office environment. In this article, we'll introduce you to Factiva and show you how the iWorks component can make using Factiva even better.

Dive In

You can access Factiva's information pool in three ways: via Factiva.com, through the Factiva toolbar (a free download that integrates with Internet Explorer), or from the Research task pane in Office 2003. In each case, if your

company does not have a corporate subscription, you will need to purchase articles before you can view them. (For more on subscribing, see the "Pay To Play" sidebar.)

Explore Factiva.com

Factiva.com offers the most complex query builder of any Factiva offering. When you log in, Factiva presents you with an extensive, interactive search display.

In addition to the Free Text (the main keyword field) and Date (last week, last month, date range, etc.) criteria, Factiva offers seven user-definable categories:

Source, Company, Subject, Industry, Region, Language, and Lookup. By default, the first five categories are set to All and the Language category is set to English. The Lookup category is blank; we'll discuss this category more in a bit.

You can tailor your Factiva searches by providing or selecting (from a drop-down menu) criteria in any or all of the first five categories. (You can also change the language.) You can further streamline searches by generating custom lists for the Source and Company criteria. If you don't want to hassle with all those criteria, or if you have a few keywords but are not sure

how you should categorize them, you can enter them into the Lookup category and Factiva will search the five main categories for those terms.

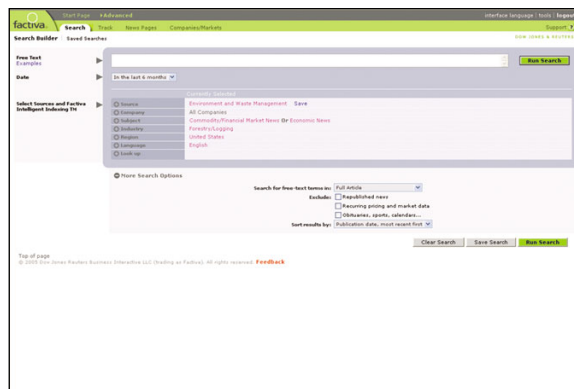
You can also have Factiva narrow its search by using specific text-search parameters, such as headline or author, or by excluding recurring news, such as sports information, and news, such as obituaries, from nonbusiness sources. Finally, you can sort your results by relevancy, date, or both.

Digging deeper. On the surface, Factiva.com's search utility may sound similar to the Advanced capabilities of other search engines. However, a quick examination of the options illustrates the depth of Factiva.com's offering.

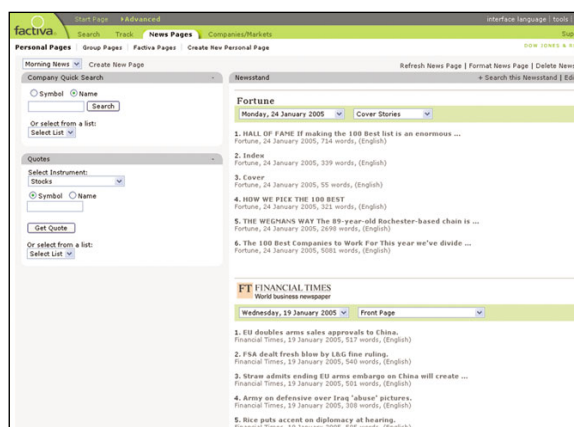
Let's assume you are trying to gather information on U.S. companies involved in the forestry industry. Specifically, you want financial information reported in the news during the last six months. If you entered the words "Company," "Forestry Industry," and "Financial Data" into a leading search engine and then instruct it to search the last six months, the search engine would return all hits containing your search string.

However, because the search engine would not know how to apply those search terms to the available pool of data, you would end up with thousands of irrelevant leads ranging from universities that offer courses in forestry, finance, and business to queries from a job applicant about the forest industry's economic outlook. Additionally, because Factiva.com archives many news sources not available to the general public, and it can reach back much further than a few weeks, a search engine lookup would produce far fewer germane, news-related hits.

Factiva.com offers several advanced features, as well. You can save and reuse your searches (although Factiva.com does not learn from past queries). You can create customized News Pages (such as the home pages of Web site portals) that deliver the information of most interest to



Factiva.com offers a broad array of search criteria to help subscribers tailor their queries.



Factiva.com subscribers can create highly customized News Pages, as seen here, while iWorks subscribers receive a standard News Page (Start Page) tailored based on their profile.

you. You can use the Track feature to set up monitored folders and have Factiva alert you (via Microsoft Outlook or a BlackBerry handheld) when news of interest is posted.

Furthermore, once you create a Company list, you can use Factiva.com's Companies/Markets option to gain a quick take on a particular company's stock quotes and charts, industry reports, and more.

Examine The Factiva Toolbar

The Factiva Toolbar is your shortcut to searching the Factiva database, whether you are a Factiva.com or an iWorks subscriber. (The Factiva Toolbar is a separate download from the main Factiva.com Web site.) When you download and install the Factiva Toolbar, Factiva automatically inserts it above the main Internet Explorer display window. The Factiva Toolbar is easy to use; you simply enter your search string in the Search For field and click Search.

Performing a search in this manner will not result in the carefully targeted results available through Factiva.com. To more carefully target its searches, the Toolbar offers two options. You can click the Advanced button on the Factiva Toolbar, which will transport you to the search interface discussed previously. Alternatively, you can refine the results of an initial, broad-based search by adding Concepts that Factiva suggests. (These appear in a pane to the right of the results display.)

In our tests, we were disappointed with the Concepts Factiva suggested. In a search of "Computer Associates," Factiva suggested Law Enforcement, Earnings, and Death Penalty/Capital Punishment as the Concepts. With the exception of Earnings, these suggestions are hardly appropriate criteria for a technology company such as CA.

Nevertheless, the Toolbar is a handy aid in your use of Factiva.com. Not only does it give you one-click access to the main Factiva.com search interface, but it

also incorporates Start and Track buttons, which transport you to your News Pages or your tracked folders, respectively.

Head Into The Office

Although Factiva iWorks users can employ the Factiva Toolbar, the power of iWorks really shows up inside Office 2003. According to Greg Gerdy, vice president of Channel Marketing for Factiva, iWorks is a collaborative effort between Microsoft and Factiva.

"Microsoft uses Factiva iWorks for their employees," says Gerdy. "So when Office 2003 came along, they approached us to be a content provider. They had no preconceived notions other than that they were building the Research task pane." The resulting product, iWorks, gives PC users access to Factiva from within Office 2003 as well as from the Research component of the Explorer bar in Internet Explorer.

iWorks users have access to the full Factiva database. However, Factiva uses information (industry, region, and job

function) you provide at sign-up to tweak the algorithm it uses to return results, both in searches you conduct and for the news it displays on your News Page (the Start Page in iWorks). You can update these settings, but your options are limited.

In addition, the search interface is a simplified version of Factiva.com. According to Gerdy, limiting the breadth of the iWorks search interface helps users target relevant information and makes the interface easier to use.

Turn on the searchlight. iWorks updates the Office Research task pane to incorporate seven reference resources: Encarta Dictionary, eLibrary, Encarta Encyclopedia, Factiva iWorks, MSN Search, MSN Money Stock Quotes, and Thomson Gale Company Profiles.

To search one of these databases, you can open any Office 2003 product and select Research from the Tools menu or press the ALT key and click anywhere in the open program window. Office will open the Research task pane. From that point, you can enter a search string in the Search For field, select a resource, and click the green Go button.

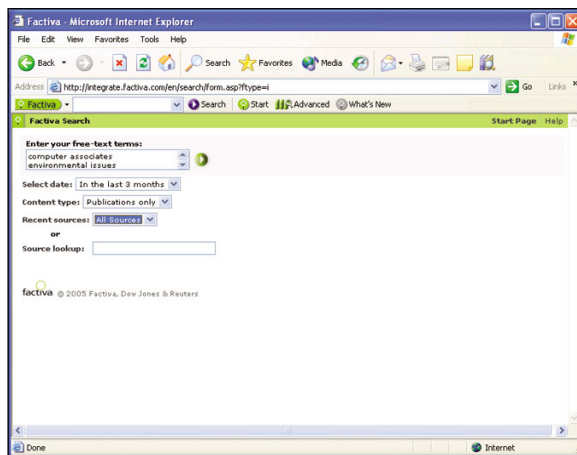
Unlike Factiva.com, you can't go directly to an advanced query-builder page. Instead, you start with a straight keyword search. However, rather than return a list of results, iWorks presents a customized, multifunctional interface.

From this interface, you can open and view search matches in the publication category, or you can click the Web News or Pictures tab to search available Web site or photo resources. To refine your search, you can expand the Search Analysis link, in which iWorks offers additional, suggested Concepts that will narrow the search. You can also click the Advanced link and create a new search with additional criteria.

A final option is the Start Page link, which opens a Factiva Start page (News Page) within the Research task pane.

Put Your Knowledge To Work

If the streamlined search interface is the cake of iWorks, then the icing is iWorks'



Factiva Toolbar's Advanced Search is a simplified version of the one at Factiva.com (it is identical to that of iWorks).

Smart Tags (a separate download at www.factiva.com/en/iworks/smarttags). The Smart Tag feature lets you insert specially marked information into an Office document or an email message. In the case of iWorks, you can insert a link to an article headline or article preview, or you can insert the entire text of an article. (Insert options vary based on what information you are viewing.)

For anyone who has ever attempted to insert text from the Web into a document, iWorks' Smart Tags will be a blessing. Web text is often formatted into frames or tables that transfer into Office, requiring considerable rework before

you can reformat the text. With iWorks, text and images transfer to the document clean and ready for formatting.

Corporate clients have additional options such as the ability to integrate iWorks with Microsoft SharePoint Services and customized corporate portals.

Ready Reference

Factiva and iWorks are powerful search tools. Our main complaint, which is actually a shortcoming of Office, not Factiva,

is that the Office Research task pane is document specific. If it was a floating pane like the panes and palettes many programs now offer, you could keep the information you have currently retrieved visible even when you open other Office documents and programs.

Factiva and its progeny can be invaluable resources for anyone who searches for business-related information online. As Gerdy points out, "If you are really in a rush to get a project finished in business, and you need an answer in two minutes, you should come to us." **PCT**

by Jennifer Farwell

Pay To Play

Factiva.com and Factiva iWorks are subscription-based. Companies can subscribe and give access to their entire firm, or individuals can purchase subscription units. With Factiva.com, individual subscriptions cost \$69 per year. For that fee customers can use Factiva.com, the Factiva Toolbar, and the Factiva component within Office 2003. At no additional charge, they can see the headline and lead sentence of articles that match their queries. However, to view the lead paragraph costs 75 cents; the full text of the article is an additional \$2.95. Tracking costs \$9.95 per folder.

Individual iWorks subscriptions do not require a yearly access fee. Instead, you can purchase a single article for \$2.95 or a block of 10 articles for \$9.95. When an iWorks purchaser searches the Factiva database from the Factiva Toolbar or the Office 2003 Research task pane, he will see the headline and lead sentence of all matches. He can then retrieve the article(s) he wants.

For corporations, Factiva offers several options, including flat-free pricing and block subscriptions (News Page Packages). Corporate customers can also purchase access to premium content, such as Dun & Bradstreet and Investext reports, not available to individual subscribers. According to Factiva representatives, a 50-user corporate subscription would cost approximately \$1,600 per month.

If you do not have a corporate subscription and want to try Factiva.com before you make a purchase, you can obtain a free, seven-day trial to Factiva iWorks. You will not have access to Factiva.com, but you will be able to use the Factiva Toolbar and take advantage of iWorks integration into Office. **I**

Microsoft Partner Pack For Windows



A Collection Of Free Programs That Are Worth A Look

Hidden in the nooks and crannies of the vast Microsoft Web site is the Microsoft Partner Pack, a collection of software the OS giant makes available for free to users of Windows XP. Originally conceived as a way to showcase how software developers can take advantage of certain Windows features, the Partner Pack programs have been set loose.

Of course, sometimes products are free for a reason. Not all of the Partner Pack programs are worth spending much time on, but a few might fill a niche on your system. Note that the Partner Pack is different from Microsoft Plus! SuperPack for WinXP (www.microsoft.com/windows/plus/PlusHome.asp). That package costs \$29.95 and includes a variety of digital photography, music, and media utilities.

Find A Partner

You need Internet Explorer before Microsoft will even let you look at the Partner Pack page (www.microsoft.com/windows/partnerpack). Once there, downloading the Partner Pack is a two-step process. First, you'll need to download a Windows update with components upon which the Partner Pack programs rely.

If IE is not your default browser (in other words, if you switched to a browser such as Firefox), the download is a bit of a challenge. You'll need to open your old copy of IE and install the Windows update. After that process wraps up, the site attempts to return you to the Partner Pack page for step two. If that page opens by default in a non-IE browser, you'll see

the message again about how the Partner Pack requires IE. If that happens, copy the URL in your browser's Address bar (it should end in the word "true") and paste it into IE's Address bar.

Once you've successfully returned to the Partner Pack download page, click the Now-Enabled link to download the software. You can pick up the complete Partner Pack by clicking the Download The Full Package link. Alternatively, you can read through the program descriptions that follow, choose the one or two programs you want, and download them individually; simply scroll down the Partner Pack page and click the program's link to download.

If you decided to take the plunge and get the whole package, just follow the on-screen instructions to complete the installation. The installation wizard lets you install all of the Partner Pack applications or only those you select. You will need to restart your computer once the installation is complete.

After rebooting your computer, you will find your new programs in the Start menu: Point to All Programs and select Microsoft Partner Pack. Microsoft sorts the software in the Partner Pack submenu into a few categories, such as Do More and Share.

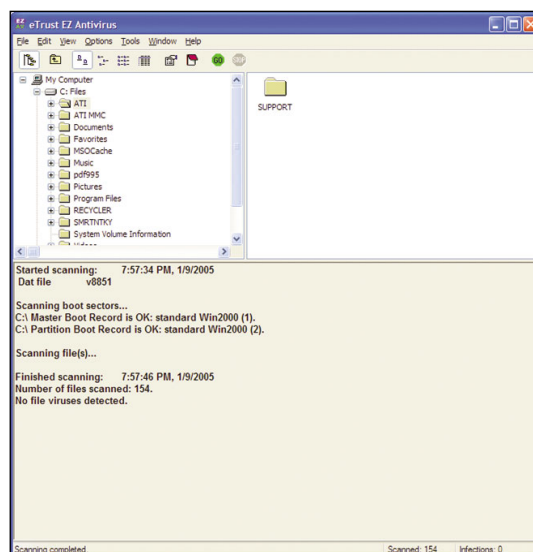
Desktop Media Gallery

The Desktop Media Gallery is basically an advertisement

for Corbis, the stock-photo purveyor whose pictures you probably see all around you without knowing it. The Gallery provides a small selection of free photos with a link to the Corbis site online. If you have any need for Corbis, you probably already know about the site and what it has to offer.

eTrust EZ Antivirus 2005

Many computer users likely already have an antivirus program installed on their PC, but just in case, Microsoft includes one in the Partner Pack: eTrust EZ Antivirus 2005 from Computer Associates. eTrust EZ Antivirus 2005 is not the most user-friendly program available, but it works fairly well. We think the bare-bones interface is more suitable for someone who is familiar



It isn't much to look at, but EZ Antivirus does a respectable job of keeping your computer virus-free.

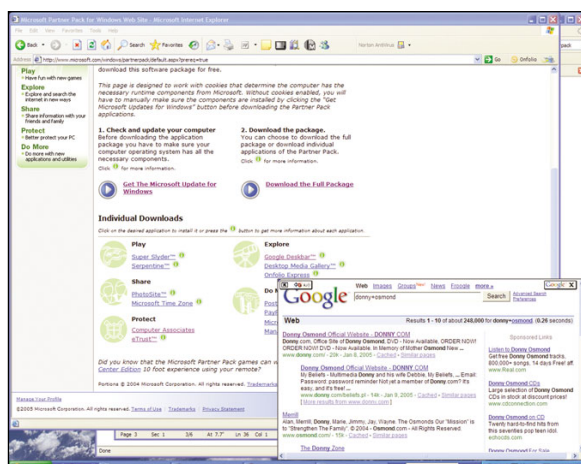
with antivirus basics rather than people just starting out.

eTrust EZ Antivirus 2005 includes essential modern features such as automatic inbound email scanning, instant message attachment scanning, compressed file scanning, and heuristic scanning to detect new threats before the new virus definition files documents them.

The program will automatically download new virus updates daily to keep its protective capability current. A free 12-month subscription comes with the software, which means you've got a good antivirus tool for a year at no cost.

Normally, eTrust EZ Antivirus 2005 works quietly in the background, but you can open it up to manually start scans at any time. An Explorer-like interface lets you browse to any particular folder and run a quick search for any viruses. If eTrust EZ Antivirus 2005 doesn't run automatically upon installation (it didn't for us), you can click through the Options Wizard to set up exactly what you want the program to monitor, and how often it should run scans of the entire system.

Overall, eTrust EZ Antivirus 2005 is a good deal, considering its price. If you don't currently have an antivirus program on your computer, you might consider making this your first Partner Pack download.



The Google Deskbar puts the search engine within easy reach on your Taskbar. Search results appear in a customizable minibrowser window.

Google Deskbar

Like some of the other programs included in the Partner Pack, the Google Deskbar is not entirely new. In fact, users have been able to find it at the Google Web site for some time. Nonetheless, if you haven't already tried it out, the Deskbar can be a useful addition to your stable of frequently used software tools.

The Google Deskbar ties directly to Google, bringing the powerful search engine to your Taskbar. There's a little twist to the installation: After you run the install file, right-click the Taskbar and choose Toolbars. Select Google Deskbar from the small list that appears. You'll need to go through this step before you can see and use the Deskbar.

The Google Deskbar shows up as a search field in the Taskbar. After you type in a search word or phrase and press ENTER, the results appear as a standard Google page in a small browser window that pops out of the lower right of your display. This "minibrowser" works like a standard browser: Click a link, and your browser takes you to that page. You can also click a small arrow in the upper left of the browser to pull up the same page in your default browser. The minibrowser disappears on its own after you're through using it.

Like the Google Web site, the Deskbar also provides access to specialized Google searches. Type a keyword in the search field and click the

arrow to the right of the search field to choose from a list of search types including: Search News, Google Groups, and Google Images.

Microsoft Time Zone

Microsoft Time Zone is a program that can report the current time in any location around the world. Time Zone hunkers down in the System Tray, appearing as a tiny globe with a clock glued to it. Click the icon and a balloon appears with a list of

user-selected locations and their current local times.

The Time Zone tool is great for businesspersons who find themselves conversing with colleagues around the globe. It can be hard to keep track of all of those different time zones, especially when you throw in such things as the International Date Line. Rather than wake people up in the middle of their night, you can check the time first and ask questions later.

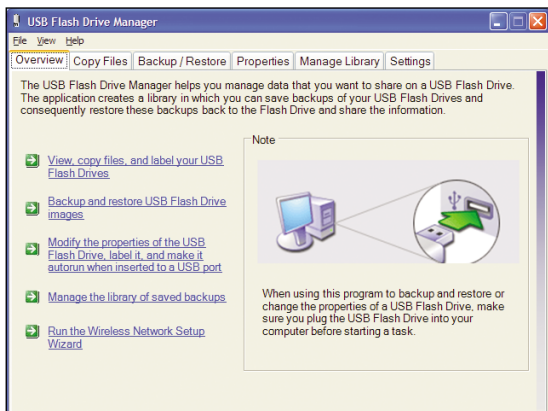
Along with a long list of built-in cities from which to choose, you can define your own locations and pick the right time zone. The program can be set to run at Windows startup so that it is always available when you need it.

Microsoft USB Flash Drive Manager

The growing popularity of flash drives (small key fobs or other "thumb drives" that hold megabytes of data) makes this one of the handier Partner Pack programs. The Microsoft USB Flash Drive Manager performs a number of interesting tasks; one of which lets you label your flash drives so they appear with the names you pick whenever you insert them into your computer's USB drives.

Tabs across the top of the Flash Drive Manager dialog box link to other options. For example, you can make backups of your drives by saving drive images. You can organize these images into a "library" and restore them to one or more flash drives later. Some users might have reason to make different collections of images that they write to their drives for different purposes. A technician might have a collection of small troubleshooting utility programs he wants to save to the drive, before heading out to fix glitches. Business travelers might load up a standard set of PDF (Portable Document Format) brochures or other sales documents.

The Microsoft USB Flash Drive Manager can also set a flash drive to Autorun, which means the drive will automatically load a program you have stored on the drive when you connect the drive to a computer. Additionally, the software can write to drives all of the necessary components for the Autorun feature so that it



Back up, restore, and keep track of your USB (Universal Serial Bus) flash drives easily with the Flash Drive Manager.

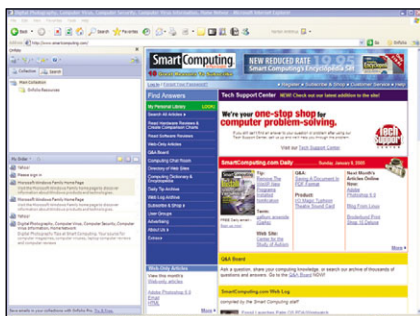
works on Windows machines that don't have the components already installed.

Finally, the Flash Drive Manager includes a convenient link to the Windows utility for setting up wireless networks. It will save your wireless network settings to your flash drive for easy installation on other computers in range. If you have a flash drive, Microsoft USB Flash Drive Manager is worth a look.

Onfolio Express

Onfolio Express is billed as software for helping you organize Internet research. It appears as a panel on the left side of IE where you can drag Web page links for safekeeping. It resembles the Favorites list. Besides saving the links here, you can also save annotations for the links. When you have numerous bookmarks saved, you can sort or search for particular characteristics. In addition, you can send collections of links to other users along with your comments via email.

The Professional version of Onfolio is a little more interesting; along with Web



Sort, search, and share your collection of Web addresses with Onfolio Express.

links you can save snippets of text, pictures, entire Web pages, and other documents. The full version of the program also has additional report-creation features that let you share the results of your research in different ways. If you try Onfolio Express and find you have some use for these types of capabilities, check out the company's Web site (www.onfolio.com).

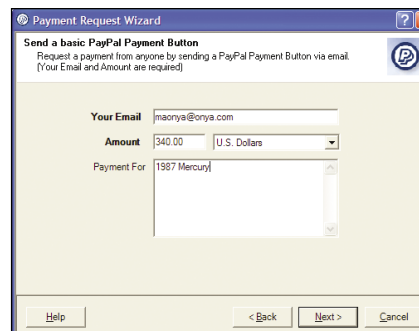
PayPal Payment Request Wizard

PayPal, the de facto bank of the Internet, provides this wizard to make it easy for you to ask other people for money. Presumably these people owe you money for something or another, although it never hurts to ask either way.

The Payment Request Wizard can insert payment buttons into outgoing Outlook or Outlook Express email. The recipient of such a message can then just click the button to use his PayPal account to send you money. You don't need a PayPal account yourself to use the Payment Request Wizard, although you'll need to register with PayPal to collect your money. For the wizard to work, you must set Outlook or Outlook Express as your default email application.

Like any wizard, PayPal's tool provides a series of instructions and choices that you click-through to put together your payment button. You can begin by clicking a button in the Outlook toolbar or an icon in the Windows System Tray. In the resulting dialog box that appears, you need to choose the type of payment button you want to appear in your message: Payment Button, Product Button, Service Button, Auction Payment Button, or a Donate Button.

After you type in your email address and other information, the wizard opens up a blank email with a



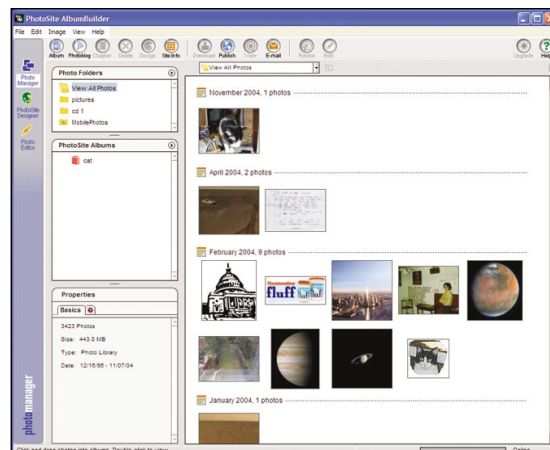
Send email requests for PayPal payments complete with easy-to-use buttons.

graphical PayPal button in the body text. You can edit the message as you like and then send it. The recipient can click the payment button to go directly to a PayPal page with the information you entered already filled in.

PhotoSite AlbumBuilder

AlbumBuilder is a serviceable digital-picture organizing tool that taps into PhotoSite.com, a picture-sharing Web site. You can import your photos into AlbumBuilder, divide them into albums and pages, and then upload the entire project to your PhotoSite Web page. PhotoSite provides you with a free Web site where you can publish as many as 150 photos. Paid monthly subscriptions increase the total number of pictures you can share.

For basic photo sharing, we like using Flickr (www.flickr.com), but AlbumBuilder does have a few features the still-in-beta Flickr has yet to add.



Organize and display online your digital pictures using PhotoSite's AlbumBuilder.

Using AlbumBuilder you can control the layout of your pictures within certain parameters. You can also alter things such as background colors and frames around pictures, as well as which albums are featured on your main PhotoSite page. You can also organize your albums into chapters for navigational clarity.

The AlbumBuilder software also ties in limited photo-editing capabilities. Three buttons along the left side of the main AlbumBuilder screen provide quick access to the editing, design, and organizational functions.

PhotoSite includes a few additional tools to make it easier to post pictures directly from your camera-equipped cell phone. You can set up a photoblogging album that displays such photos in chronological order with space for you to add explanatory text. Visitors can leave comments through a feedback link or explore your blog by clicking dates in a small calendar. AlbumBuilder includes a command to download pictures you upload directly to your PhotoSite, so you always have the current content on your home computer as well as online.

Post-it Software Notes

Helping you in the Do More category is 3M's Post-it Software Notes Lite. For some people, no number of

Post-it Notes is too many. In case you are itching to stick the famously sticky notes on your computer's Desktop, as well as your real-world desktop, this little program fits the bill.

Like the real thing, individual sticky notes appear from what resembles a stack of Post-it Notes on your Desktop. When you click the Post-it button, a new note appears in the middle of your screen. You can resize notes, type messages on them, paste graphics to them, and you can even set alarms that remind you to read a specific note. Use your mouse to drag notes around your Desktop and set them to remain on top of other windows for the authentic Post-it Notes experience.

The software version of this simple note idea does not work as smoothly as its real-world equivalent. Some of the trouble lies within software bugs. When creating notes, you may see strange text stuck around their edges; text from whatever appeared on your Desktop at the time you created the note. The program also takes up valuable Taskbar space.

If you've been looking for a utility to organize and compile notes, however, this one's free. If you haven't felt the need to pepper your Desktop with yellow squares, stick to the paper notes.

Super Slider & Sandlot Serpentine

The Partner Pack includes a couple of games that aren't going to win any awards but might provide a bit of distraction next time you want to try something other than solitaire.

Super Slider casts you in the role of Slider, a cute little blue ball that zips around a series of maze-like



You can waste a few minutes, or more, with games such as Super Slider, which is a part of the Microsoft Partner Pack.

boards in the direction you choose. The goal is to slide this little character in the correct sequence of directions so that he eventually eats the glowing globe of energy, or whatever it is. A series of tutorial games introduces other characters that either help or block Slider as he moseys about the board.

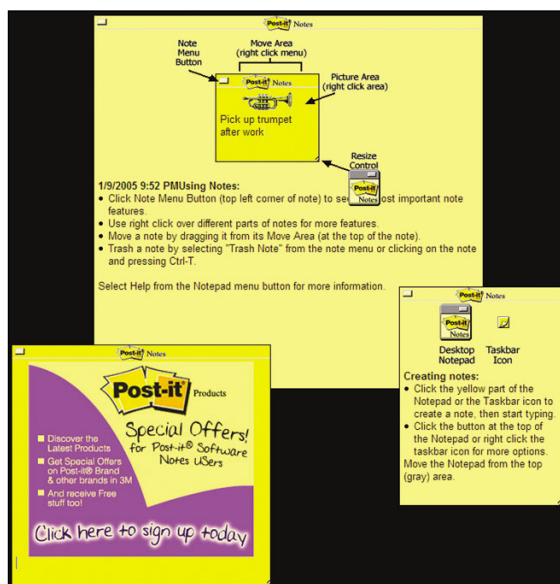
The Serpentine game is basically the same idea; only instead of a sliding ball you control a meandering serpent by selectively blocking its path with walls. Box the serpent in just right, and it will head to the goal.

Both games are pretty easy to pick up, and kids might enjoy figuring out the moves necessary to get the characters from point A to point B. Later levels present a few more challenges.

Pack It Up

Although it's not the "ultimate application package for your WinXP PC," as Microsoft bills it on the Partner Pack Web page, this collection of programs does include a couple of nice components. The antivirus tool is a decent alternative to buying retail, and the flash drive manager applet is a nice addition, but we think Microsoft may build something like this into future versions of Windows. Pick and choose your Microsoft Partner Pack favorites and let the rest go. **PCT**

by Alan Phelps



The software version of 3M's Post-it Notes lets you put yellow sticky notes anywhere you want across your Windows Desktop.

Adobe Acrobat 6.0 Professional



Getting A Good View

Adobe Acrobat's power lies in the fact that it gives you the ability to view documents as PDF (Portable Document Format) files, no matter which programs were originally used to develop them. The downside, however, is that the information sometimes displays smaller or larger than you'd like. Luckily, Acrobat provides methods that you can use to view pages using various magnifications.

Zoom Toolbar

The best place to go when you want to change magnification is the Zoom toolbar. By default, this toolbar is visible; if not, you can display it by opening the View menu and selecting Toolbars and Zoom.

The Zoom toolbar includes several tools and menu options, all of which help you control your viewing options. Starting from the left side, the toolbar includes the Zoom tool, the Zoom drop-down menu, three preset tools (Actual Size, Fit Page, or Fit Width), the Zoom Out tool, the Magnification box and menu, and the Zoom In tool. You can find out a tool's name by resting your mouse pointer over it until a Tool Tip displays. Some of the tools and menus provide the same zoom options, but that's OK—it just means that you have plenty of ways to work with your documents.

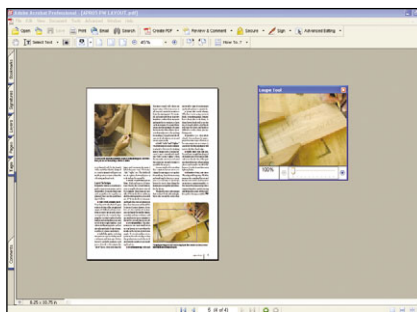
Zoom Tool

The Zoom tool, which appears on the left end of the toolbar, allows you to zoom in to a specific part of a document or zoom out for a better overall view. Additionally, this tool includes a drop-down menu that you can use to select various options.

To use the tool, first choose the setting (such as Zoom In or Zoom Out) from the drop-down menu. If the setting you want is already in place, click the tool to activate it. The mouse pointer will change to a magnifying glass icon; click in the document to enlarge or reduce the viewing size. In fact, you can click as many times as necessary until the document displays as you want.

Now let's look at some tips and tricks for using the Zoom tool more efficiently. For example, if you have the Zoom In tool turned on, you can also drag to outline a marquee of the document area that you want to enlarge. When you release the mouse, Acrobat increases the magnification of the selected area so that you can better view it.

You can also temporarily toggle from Zoom In to Zoom Out (or vice-versa) by pressing the CTRL key. Continue to hold down the CTRL key while you click (or click and drag) in the document and then release the mouse and CTRL key.



The Loupe tool helps you view a specific area of your document in a window while simultaneously viewing the entire page.

Another great option is to use the Dynamic Zoom tool, which is available on the Zoom tool's drop-down menu. After you activate Dynamic Zoom, click and drag in the document. Clicking upward or to the left enlarges the document's display; clicking down or to the right reduces it. The magnification is set when you release the mouse. Furthermore, if you want to turn on the Dynamic Zoom tool temporarily, press SHIFT, and then click and drag the mouse.

Looking for still more zoom options? Try choosing the Loupe tool. This tool is especially useful when you want to look at small, fine details of a document. Start by choosing Loupe from the Zoom tool's drop-down menu. Click and drag in the document, and a small, resizable Loupe window opens, allowing you to simultaneously view the document's details.

Zoom Out & Zoom In Tools

The Zoom Out and Zoom In tools (represented by the plus and minus signs) and the Magnification box are located on the right end of the toolbar. You can repeatedly click the Zoom Out or Zoom In tools to quickly change the view. Additionally, the current zoom setting is shown as a percentage in the Magnification box. If you'd like a little more control over the way the page is displayed, you can click the drop-down arrow to the right of this box and then choose a specific magnification.

As another alternative, you can indicate the exact percentage that you want in this box (such as 68%). Just click in the Magnification box, type the percentage you want, and then press ENTER. **PCT**

by Linda Bird

Denon's philosophy is simple.

Either
you're
innovating
or
you're
imitating.



Introducing Denon's New AVR-5805

The World's First 10-channel A/V Receiver With Fully Configurable 4-zone Capabilities

A Breakthrough In Multi-source, Multi-zone Flexibility

For the home entertainment enthusiast and custom installer alike, Denon's new AVR-5805 delivers unprecedented four-zone home entertainment integration and control — all from a single component. With 10 configurable and discrete amplifiers, 16-channels of audio output, and the world's first-ever ability to drive two fully independent 5.1 systems, the AVR-5805 will also route audio and video signals from up to four independent sources and distribute them to up to four separate zones throughout the home. Its advanced capabilities even allow discrete power, source selection and volume control of each zone. And flexibility is just the beginning. Read on.

Masterful Technologies And A "Sweet Spot" For Every Listener

Behind the AVR-5805's newly designed, easy-to-read front panel display is a profusion of powerful technologies. An Equal Power amplifier section delivers a massive 170 watts of high-current power into each of its ten channels, processing for every popular 7.1-, 6.1- and 5.1-channel surround sound format — from Dolby (including Pro Logic IIx) and dts, to THX Ultra2 and THX Surround EX. The AVR-5805 also introduces the latest in Auto Setup Calibration and Equalization with the Audyssey MultEQ_{XT} system, tailoring sound not only to the listening environment but also to the audience. This advanced technology analyzes and calibrates six critical settings including variable crossover point detection. It also determines the correct frequency response for up to six separate listener positions and then averages all six. The result? Literally a "sweet spot" for every listener in the room.



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This is innovation.

Advanced Video Conversion And Denon's Exclusive Circuitry

The AVR-5805 offers a full complement of advanced processing capabilities like HDMI/DVI digital video selection, video up-scaling (including Faroudja DCDi technology for analog sources) and the world's first dual, independent video conversion for unmatched simplicity and the highest picture quality from all your video gear. For even greater A/V performance, it employs the most advanced Texas Instruments' and Analog Devices' 32-bit DSP processors, Burr-Brown 24-bit/192kHz audio DACs, as well as Denon's newly improved DDSC-D (Dynamic Discrete Surround Decoder-Digital). And to top it off, exclusive Advanced AL24 Processing Plus circuitry maximizes all source signals so that the high-resolution DA converters work at peak capacity.

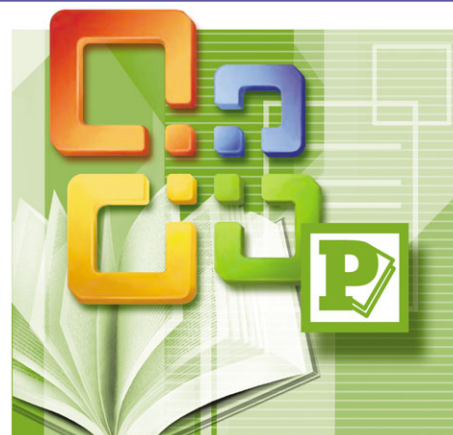
More Connection Options Than Any Receiver In The Industry

In addition to an extensive complement of digital and analog A/V connections, the AVR-5805 includes a full array of "custom installation" features: assignable high amperage DC trigger outputs, dual RS-232C ports to facilitate integrated system and PC connectivity, and a built-in Ethernet port that adds more system control as well as future updates and upgrades. In-demand connection options include 6 high-bandwidth (100 MHz,) HDTV-compatible component video inputs, HD switching for 2 zones and much more. Finally, the latest version of Denon Link 3 and dual IEEE-1394 inputs allow for reception of high-resolution, multi-channel digital audio data directly from compatibly equipped DVD players. It all adds up to total flexibility and the ultimate level of sonic performance. Denon does it again.

DENON
The First Name in Digital Audio

Microsoft Publisher 2003

Get More Media Content Free



Microsoft Publisher 2003 bundles hundreds of stock photos, clip-art images, and other graphical embellishments that you can incorporate into your desktop publishing projects. But sometimes that isn't enough. The next time your search for a particular design element comes up empty, you should browse Microsoft's online catalog of clip art and media content.

Mass Media

You can access the catalog by pointing your Web browser to office.microsoft.com/clipart/default.aspx or opening Publisher's Clip Art task pane and clicking the Clip Art On Office Online link. (To open the Clip Art task pane, click the Picture Frame icon on the Objects toolbar and select Clip Art.) The Microsoft Office Clip Art And Media Home Page will appear.

The Microsoft Office Clip Art And Media Home Page provides hundreds of additional clip-art images, photos, animated graphics, and sounds for inclusion in your Publisher 2003 files. It also includes all of the content that came bundled with your copy of Microsoft Office. For this reason, you should make a habit of searching for content locally before heading online so you can avoid redundant downloads.

The content is organized into more than 45 categories. You can peruse the offerings by selecting a category and flipping through the resulting pages of content. You also can execute a keyword search to locate content that relates to particular subject matter. Simply select a media type in the Search dropdown menu and type a keyword or

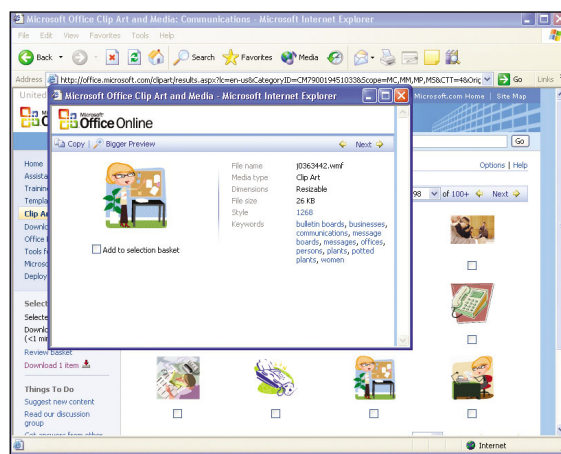
keywords in the adjacent field. Click the Go button to launch the search.

When you find an item you like, select it for downloading by selecting the checkbox located beneath it. As you select items for downloading, the Selection Basket (located in the left pane) will keep track of the total number of items you select, as well as the cumulative size of the download. You can download all of the selected items at once by clicking Download . . . Items in the Selection Basket and following the on-screen instructions.

The first time you download from Microsoft's online media catalog, it may prompt you to download an ActiveX control or accept a cookie. Agree to either and then proceed with the download by following the on-screen instructions. When the File Download dialog box appears, click Open instead of Save to load the items directly into the Microsoft Clip Organizer. The site may prompt you to

indicate whether you want to catalog your new items now or later; choose Now. Wait while the Microsoft site downloads the selected items and organizes them within the Microsoft Clip Organizer.

After the items are on your system, you can add them to your Publisher publications. Return to Publisher and access the Clip Art task pane. Open the Search In field and deselect the Everywhere option. All of the check marks will disappear. Next, burrow through the contents of the Search In field to locate the Downloaded Clips folder (under My Collections); select it and press ENTER. The words Selected Collections should appear in the Search In field. Leave the Search For field empty and then click the Go button. All of the downloaded clips will appear in the Clip Art task pane. Click the item you wish to add to your current Publisher publication and it will appear in your Publisher publication.



You can get more information about a particular item while perusing the online catalog by right-clicking the item and selecting Properties from the pop-up menu. The resulting window lists the item's name, and dimensions, as well as several identifying keywords.

Permanent Collection

The items you download from the Microsoft Office Clip Art And Media Home Page are stored in the C:\DOCUMENTS AND SETTINGS\USERNAME\MY DOCUMENTS\MYPICTURES\MICROSOFT CLIP ORGANIZER folder (where C: represents the drive letter assigned to the Windows drive and USERNAME represents the name of the current user account) and remain a permanent part of your local media library. You can use them in any Microsoft Office document and many other desktop publishing programs. **PCT**

by Jeff Dodd

Adobe Illustrator CS

Masking Magic In Illustrator



Masking is one of those tricks of the trade that prompts the uninformed to ask, "How did they do that?" To mask is to use an object (called a mask) that reveals or hides other objects (see Figure 1). It seems like magic but it is a universal concept in visual design, animation, and video editing. Most graphic design programs have some mask-making feature able to produce certain effects. For example, a scene transition where one frame wipes away another is a moving mask. A computer-generated character acting with a human actor is superimposed into a scene using masks.

Masks are versatile in that they can hide and reveal content and add effects, without actually destroying the original work being masked. Think of masking tape that protects a window seal as you paint around it; similarly, a digital mask protects areas of an image as you apply effects to unmasked areas.

In Illustrator, a mask is called a clipping mask and has various attributes:

- Only vector objects can be masking objects, such as a path, a compound shape, a text object converted to outlines (select Create Outlines from the Type menu), or a group of these. However, they can mask any type of artwork, such as photographs or other vector illustrations.
- The clipping masking object must reside above the object being masked.
- Masked objects are moved into the clipping mask's group in the Layers palette if they don't already reside there.
- After converting an object to a clipping mask, it loses all its previous

attributes and is assigned no fill or stroke color.

- When using text as a mask, first convert it to a compound path by choosing Create Outlines from the Type menu or Expand from the Object menu.
- When using more than one vector object as a mask, all the objects must first be selected and converted into a single, compound path (select Compound Path from the Object menu).

Create A Simple Mask

Let's start simple and give it a try. Open Illustrator and create a new document. Select Place from the File menu and import a photograph (an example image to be masked).

Draw a simple, closed vector shape (a circle or star, perhaps) and be sure that it is positioned above the imported photo. Select both the vector shape and the

photo and choose Object, Clipping Mask, and Make. The masking object becomes the window through which the object below is shown (see Figure 2).

Edit A Mask

To move either the mask object or the object being masked, select the Group Selection Tool in the toolbox (hidden under the Direct Selection Tool), and then select one object or the other to translate. To edit individual points on the masked object, use the Direct Selection Tool.

To release the clipping mask choose Object, Clipping Mask, and Release.

Create A More Complex Mask

Let's take this a bit further and use several objects as mask. Create a new document and import a photo or artwork to mask. Create text over the artwork, such as the word "SNOW" as in the example. Select the text and convert it into compound paths by selecting Type and Create Outlines. Create a few more shapes over the artwork. (In the example we used snowflakes.)

Because there is more than one shape being used for the mask, all the shapes need to be combined into a compound path. To do this, select all the mask shapes, but not the artwork behind, and choose Object, Compound Path, and Make. Now select all the parts (the compound path and the artwork behind) and choose Object, Clipping Mask, and Make. **PC**

by Annesa Hartman

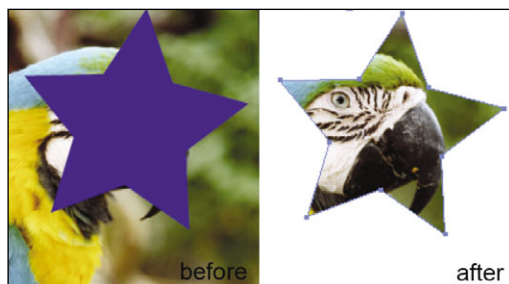


Figure 1. Before and after example of a simple mask effect.



Figure 2. Before and after example of using more than one mask object.

ANNESA IS THE AUTHOR OF THE BOOKS "EXPLORING ILLUSTRATOR CS" AND "EXPLORING PHOTOSHOP CS."

Adobe GoLive CS

Don't Be So Quick To Dismiss Pop-Ups



Pop-up windows have gotten a bum rap. Although they're often considered the bane of the Internet, pop-ups aren't inherently bad. What most people find objectionable are pop-ups that appear automatically; pop-ups that appear as the result of clicking a link are an entirely different matter.

You can use linked pop-ups to display an image in greater detail, offer site navigation help, or provide in-depth information about a product, all without requiring the user to leave the current page.

Create The Pop-Up

Pop-ups are standard HTML pages. You can use any design technique, but for our example, we'll create a basic pop-up page that contains a bit of descriptive text and a link to close the pop-up window.

Click File and select New Page. Grab the bottom-right corner of the layout window and drag until the Layout Dimensions read 325 x 125. (The actual size isn't critical; just note the info for later.)

Click in the Layout window and type **This is an example pop-up page**. Press ENTER twice and type **Close**.

We will add a mouse action to allow the visitor to close the pop-up. Select the Close text and click the Create Link icon (the chain link) in the Inspector palette. Type a pound sign (#) in the Link field or

click the chevron to the right of the field and select the pound sign from the drop-down menu. Leave the Target field blank. Enter a name for the link in the Title field. Some browsers use this field to aid individuals with vision impairments.

With the word Close highlighted, go to the Rollovers & Actions palette. (If it's not open, click Window and select Rollovers & Actions.) Click the Action tab. In the Events list, select Mouse Click. Under the Actions list window, click the Create New Item page icon. Click the Actions button and then select Link and Close Window from the pop-up menu.

Our simple pop-up page is complete. Click File, select Save, and name the new page pop-up.html.

Create A Link To The Pop-Up

The next step is to add a link to the originating page that will cause the pop-up to appear. Click File and select New Page. (To add the link to an existing page, open that page.) In the layout window, enter the text you want to use to link to the pop-up. In this case, type **Open Pop-up**. Highlight the text and click the Create Link icon in the Inspector palette. Type a pound sign in the Link field or click the chevron and select the pound sign from the drop-down menu. Leave the Target field blank. Enter a name for the link in the Title field.

There are several mouse actions available; we will use Mouse Click. With the Open Pop-up text highlighted, click the Action tab in the Rollovers & Actions palette. In the Events list, select Mouse Click. Under the Actions list, click the

page icon. Click the Actions button and then select Link and Open Window.

Control The Pop-Up's Behavior

The Action palette will display the available parameters for the Open Window action. In the Link field, click the Browse button (the folder icon) and select the pop-up.html file. The Target field is optional. If you enter a name, other pop-up links on the same page can use the same window to display their contents. In the Size field, enter the layout dimensions of the pop-up window. There are seven checkboxes to allow various browser elements to display as part of the pop-up window. Remove check marks from any functions you don't want to include.

Search engine spiders can index pop-up pages, allowing someone who finds the listing in a search engine to open a pop-up without ever seeing its originating page. To prevent this, store all pop-ups in a single pop-ups folder at the root of your site and then add a simple text file called robots.txt at the root of your site. The Robots.txt file should contain the following text:

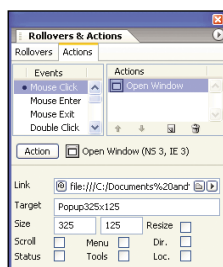
```
User-agent: *
Disallow: /pop-ups/
```

This will prevent spiders from indexing anything in the pop-ups folder.

Link It Your Way

We used simple text links, but you can use the same techniques plus images, buttons, or any other element to originate or control the pop-up. **PCT**

by Tom Nelson and Mary O'Connor



The Open Window action allows you to specify the size of the pop-up window, as well as the browser functions, if any, that will display in the pop-up window.

QuarkXPress 6.0

How To Create & Apply Cascading Menus

Cascading menus are everywhere: in operating systems, applications, Web browsers, and Web sites. Perhaps the most familiar example is the Start menu in Windows.

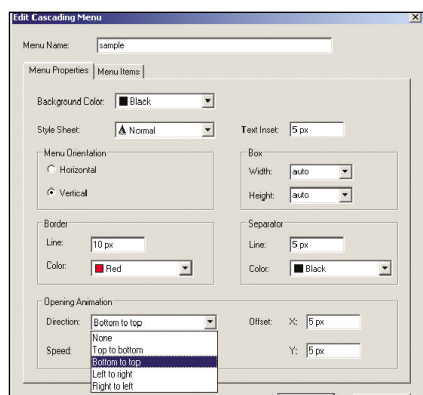
By definition, a cascading menu is one that opens up submenus. There's no rule governing how many levels of menus a cascading menu can contain. Windows' Start menu, for instance, can easily go four or five submenus deep, especially when you click All Programs. At the other extreme is the File menu in QuarkXpress, which yields only one submenu if you don't have an open file.

If you're using QuarkXPress to create Web layouts rather than print projects, you can insert cascading menus.

Form The Frame

To begin, choose Cascading Menus from the Edit menu. Click New to open the Edit Cascading Menu dialog box, which contains two tabs that offer all the choices for defining your menu.

Type in a name for the menu in the Menu Name field, then select the Menu Properties tab. First, select a background color and style sheet from the



A key component in creating a cascading menu is deciding which direction it will run.

appropriate drop-down menus. You'll notice that color options include "regular" colors, such as black and blue, and some with names such as Web Maroon or Web Dark Green. These are the names given to Web-safe colors, which are hues that will appear the same regardless of the monitor through which the Web page is displayed.

Next, enter a value in the Text Inset field. This determines how much space will separate the text in the menu from the edge of the menu.

Next up are the Menu Orientation and Box features. The first lets you run the menu vertically or horizontally, while the second lets you determine the height and width of the whole menu. If you choose the Auto values, QuarkXPress will size the box based on the font size and number of characters in the name of the menu or submenu item. If you choose the Auto values, QuarkXPress will size the box based on the font size and character count of the name of the item.

Your next two choices are for the menu's border and separator lines (those that fall between menu items). For each you'll need to specify a width, in pixels, and a color.

The last item on the Menu Properties tab is Opening Animation. Under Direction, you can choose which way the menu displays its content: from top-to-bottom or left-to-right, for example. If you select anything other than None, this activates the Speed field. Enter a value no greater than 10,000 to determine how much time (in milliseconds) elapses between when the menu is clicked and when it appears.

Finally, set the X and Y coordinates (in pixels) to determine how far the menu items should be offset from the menu.



Create Content

Now that you've created the frame for the menu, click the Menu Items subhead to fill in the content of the menu. Under Menu Structure, choose New and Menu Item and then give the item a name. If desired, you can create a hyperlink for that item by typing it in the Hyperlink field or choosing a URL type from the drop-down menu.

Once a menu item is specified, you can create submenu items. Choose New and Submenu, and then repeat the steps you followed to create the Menu Item.

Next, select a font color for the menu items, then a background color. These are the colors that will appear when a mouse pointer hovers over the item. Now make similar choices for your submenu items.

Click OK, and your cascading menu is complete.

Verify The Display

Now you are ready to use your cascading menu on the Web by applying it to an item that you've designated for exporting as a graphic. To so designate an item, click on it and then choose Item and Modify. On the Export tab, click the checkbox next to Convert to Graphic on Export.

With the item still selected, right-click and choose Cascading Menu from the context menu, or choose Cascading Menu from the Item menu. Pick the name of the cascading menu you just created or any other cascading menu available. A small icon will appear in the corner of the item.

Now, save the layout by choosing Preview HTML from the Page menu. This will open your file in your default Web browser so you can make sure the cascading menu displays as you intend it to. **PCT**

by Rachel Derowitsch

Intuit QuickBooks Pro 2005

Create, Print & Email An Invoice

Delivering a product or providing a service is only half of a job well done. You also have to bill the client so that you can receive payment. That's where QuickBooks comes in. The financial management application helps you create and circulate invoices to your customers.

Bill 'Er Up

To create an invoice, open the Customer Navigator and click the Invoices icon. The Create Invoices window will appear. Pick one of the three default templates: Service, Product, or Professional. You can indicate your preference in the template selection field, which is located directly beneath the Customize button. (You also have the option of creating a custom invoice, but we'll discuss that in a future "Intuit QuickBooks" article.)

Next, you must specify the name of the customer. Open the Customer: Job field to peruse your customer list. Select an existing customer from the list or click Add New to create a new customer profile. (See the "Intuit QuickBooks" article in the March 2004 issue of *PC Today* for detailed instructions about how to do this.) After you select a customer, the customer's address will appear in the Bill To field on the invoice template. The current date and an invoice number will appear in the Date field.

QuickBooks also lets you specify the conditions under which you are issuing the invoice. Depending on which invoice template you're using, you can indicate a purchase order number, the name of a sales representative, a shipping date, the terms of the sale, and the name of a shipping carrier, among other things. Provide the appropriate information in the corresponding fields as necessary. QuickBooks

may provide some of this information automatically depending on how you configured the customer's profile.

Now you're ready to define the goods or services involved in the transaction. In the body of the invoice, type the name of the item or service, a brief description of the item or service, the quantity in which it was provided, and the assessed rate or

There's no faster, cheaper, or easier way to deliver an invoice than sending it by email. Simply mark the invoice for emailing, and then open the Select Forms To Send dialog box and click Send Now.

fee. QuickBooks will automatically calculate the total amount charged for the item or service. Repeat if necessary to charge for multiple items or services. QuickBooks will keep a running total at the bottom of the invoice. If you are required to collect sales taxes, QuickBooks will assess the taxes automatically. Click the Apply Credits button if you owe the customer a credit. We will explain how to configure QuickBooks to assess sales tax and apply credits in future articles.

Next, you can dictate a stock message that prints at the bottom of the invoice. Open the Customer Message field and choose one of the default messages or select Add New and type your own



message. You can also type a brief note in the Memo field, but this note is for your own tracking purposes and will not appear on the printed invoice.

Speedy Delivery

Finally, select the To Be Printed or To Be E-mailed options, depending on how you intend to deliver the invoice, and click the Save & Close button. QuickBooks will check spelling in the invoice automatically before closing it and adding it to your Accounts Receivable list.

QuickBooks will send items you marked for printing to a print queue, which you can access by opening the File menu and selecting Print Forms . . . Invoices. When the Select Invoices To Print dialog box appears, verify that the invoice is selected for printing and click OK. Follow the instructions in the Print dialog box to launch the print job. After the invoice prints, check it for errors and type **ok** in the resulting Did Form(s) Print OK dialog box. The invoice is now ready for mailing or hand delivery.

Likewise, items you mark for email will be added to an email queue, which you can access by opening the File menu and selecting Send Forms. When the Select Forms To Send dialog box appears on-screen, make sure the invoice is selected on the Forms To Send list. While you're at it, review the address of the recipient and the contents of the message. You can modify either item by clicking the Edit E-mail button and making changes in the resulting Send Invoice dialog box. Click the Send Now button to transmit the invoice to the specified email address immediately. **PCT**

by Jeff Dodd

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Microsoft's Battles

How They'll Impact
The Way You Use Your PC

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- 60 The Battle Over Web-Based Email
- 64 The Battle Over Portable Tech Entertainment

Guess who is poised to win in the aftermath of the biggest battles Microsoft is currently waging? You are! Of course, the idea that competition is good for the consumer is hardly new. But here's what is most interesting about today's software battles: Not only are consumers benefiting by getting better products, they're benefiting by getting cheaper (and often completely free) products. In this and subsequent articles, we'll look at how Microsoft is handling its latest

challengers, and how the repercussions might affect the way you use your PC.

The Persistent Penguin

Although you can now buy incredibly cheap Linux-based desktop and notebook PCs at Wal-Mart and through online retailers, operating systems using the Linux kernel haven't gained steam in the non-IT sector. Gartner's 2004 statistics show Windows with a 96% market share on desktop PCs compared with 2.8% for Mac OS and a paltry 1% for Linux; so

Linux is the undisputed underdog in the OS world. But despite those percentages, a recent IDC study projected that Linux-based desktop PC sales will bring in \$10 billion by 2008. Such a sum wouldn't put a dent in Microsoft's annual intake, but it's nothing to sneeze at.

In addition to inexpensive Linux-based PCs, there are also scads of free (or very cheap) Linux-compatible productivity applications available to run on them. So why does the Linux vs. Microsoft battle for the desktop remain

unlikely that Linux will make significant strides on the desktop.

A recent twist in this story involves IBM, a company that has long supported Windows and Intel but has also begun backing Linux. IBM is selling its PC division to the Chinese PC-maker Lenovo, which implies that IBM has an intense interest in pursuing Linux further. Still, even if the world's most-populated country pushes out Microsoft in favor of Linux (as it has been doing over the past year), this is one battle that isn't likely to affect the way you use your PC.

Son Of Mozilla

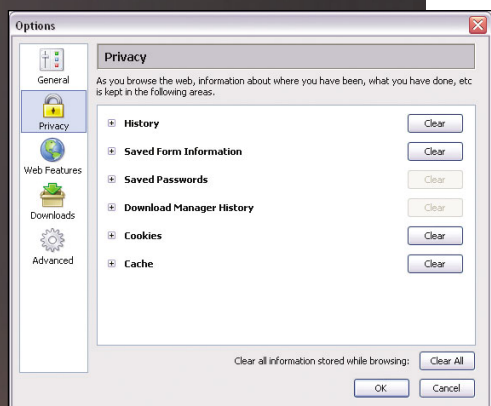
It often seems that Microsoft would like to consider the battle for the Web browser as already fought and won. Netscape Navigator once reigned supreme, and Internet Explorer proceeded to stamp it nearly out of existence. End of story.

But then innovations began to occur in browser development, and a buzz started among Web surfers that you didn't have to settle for IE's staid feature set. NetCaptor introduced tabbed browsing, which lets you keep multiple sites open at once without having to open a new window for each. The Opera browser incorporated tabbed browsing, as well, and added its own email and

chat features. With Navigator and Opera still in the picture, and other browsers taking tiny slices of the market-share pie chart, the Mozilla browser emerged two years ago as IE's chief challenger.

Since then, Mozilla.org's free Firefox browser has taken the lead. Firefox has become extraordinarily popular, surpassing 20 million downloads as of this writing and helping to push down IE's share from 95.5% in June 2004 to 90.3% in January 2005.

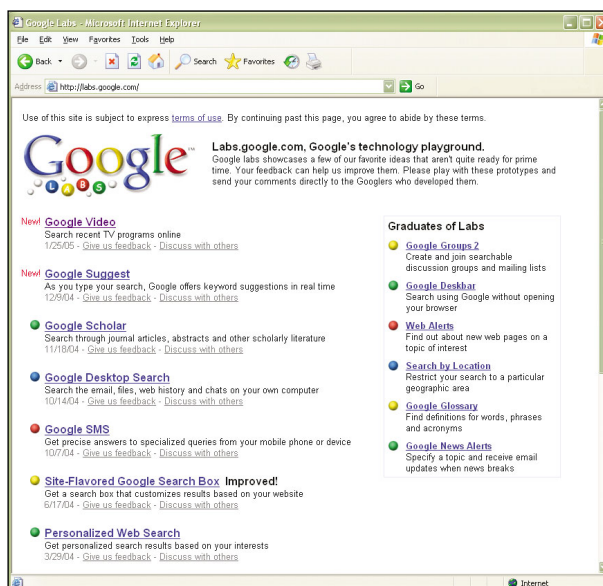
Firefox offers the tabbed browsing, pop-up blocking, RSS (Rich Site Summary) newsfeed, security, and other features consumers want. (To see a feature-by-feature comparison of Firefox and IE, check out "The Battle For The Browser" on page 56.) But at this point IT departments (especially large ones) are hesitant to accept an IE alternative. Because IE is a huge target for online attackers, prompting Microsoft to frequently issue security updates for its browser, some companies have publicly chosen to move to Firefox. Indeed, Firefox is more secure than IE by design, prompting you before letting anything suspicious hit your PC. But because IE better integrates with other applications and offers greater administrative control over individual desktops, chances are the IE-Firefox battle won't affect your work PC.



The easy-to-use security and privacy controls in Mozilla.org's Firefox help make this browser a favorite among consumers, but businesses are remaining faithful to Internet Explorer.

such a David-and-Goliath struggle? The answer comes in two parts: compatibility and support. Although Linux aficionados argue that you can do anything on a Linux machine that you can do on a Windows-based PC, when it comes to sharing files (with the notable exception of Microsoft Office files) and using the same software that most of the world uses, you're at an extreme disadvantage if you have a Linux system.

Linux stays strong in the enterprise world because companies such as Red Hat and Novell offer product suites and support that's comparable to Microsoft's offerings. In other words, there is a corporate Linux community that's hard to beat. Unless a similar Linux community were to develop for desktop users, it's



The Big Brand Era

Apple and Google are, at press time, in the No. 1 and No. 2 spots

One glance at the Google Labs page shows that Google has been busy. Google also recently hired the lead Firefox engineer and has been rumored to have a team devoted to VoIP (Voice over Internet Protocol), or Internet-based phone calling technology.

for the most-recognized brand, according to the latest survey from Brandchannel. Although Apple seems to rely more on brand identification for the success of its products than does Google, these two companies (with Firefox in the wings) will undoubtedly have the biggest effect on how you use your PC.

Google clearly dominates the search engine arena, with 41.6% of the market share compared to Yahoo!'s 31.5%, MSN's 27.4%, and AOL's 13.6%, according to the

latest report from Nielsen//NetRatings. Google has used that popularity to drive skyrocketing ad sales and an overwhelmingly successful IPO launch. If Google had remained solely in the search business, though, it wouldn't pose nearly the threat to Microsoft that it does today.

With the release of Google Desktop Search, Google has hit upon a Windows soft spot. Microsoft has long recognized that users want to have more control over their data—how to label, organize,

and retrieve it. Although the WinFS file system was intended to be a complete overhaul of previous Windows file systems and was slated for inclusion in the next major Windows release (aka Longhorn, due for release in 2006), a significant aspect of its appeal was to be user-friendly file searching.

In effect, then, Google Desktop Search, Yahoo! Desktop Search, and similar products are ways in which competitors are affecting your PC before Microsoft gets the chance to include comparable changes in future Windows versions.

Every battle we've discussed so far affects the software side of your PC; the ongoing Apple-Microsoft rivalry will have more of an effect on the hardware. Apple's cool product designs (think iPod) have so captivated the public imagination, that increasing numbers of Windows users drool over the prospect of switching to the Mac.

Cost, though, and incompatibility with Windows software, have prevented mass switching. Until recently, that is, when Apple launched its \$499 Mac mini and reduced PowerBook prices by up to \$200. Big PC-makers such as Dell might dismiss the potential effect on design, but rest assured that smart PC-makers will think more like Apple when creating new PCs.

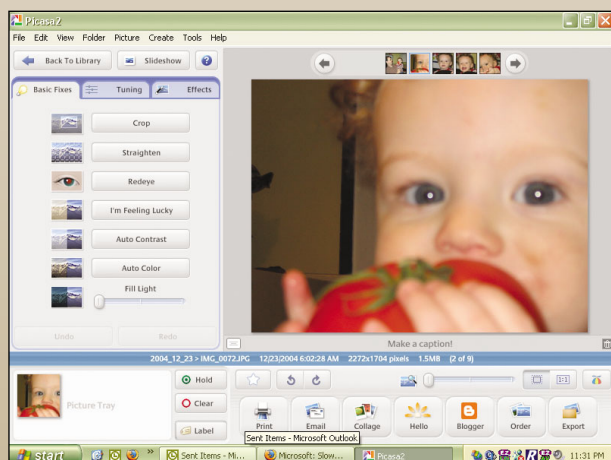
More Ahead

In addition to the cover story articles we mentioned above, check out "The Battle Over Web-Based Email" on page 60 for a comparison of MSN Hotmail, Yahoo! Mail, and Google's Gmail. And read "The Battle Over Portable Tech Entertainment" on page 64 for a look at how Microsoft's music offerings stack up with Apple's. **PC**

by Cal Clinchard

Google Your Pictures

Among Google's many recent, intriguing offerings is Picasa 2; free software that helps you organize and edit images on your computer. Because of its unique blend of search and edit capabilities, Picasa 2 manages to challenge Microsoft on multiple fronts simultaneously. As with Google Desktop Search, Picasa 2 makes it easy to find data (in this case, image files) stored on your desktop PC. Of course, you can use Windows' built-in Search feature to find just about any file stored on your



Picasa 2's good-looking interface includes an intuitive selection of image-fixing buttons, as well as easy-to-use options for emailing images, creating slideshows, and more.

hard drive, but the results aren't nearly as pretty as they are in Picasa 2,

which displays thumbnails in adjustable sizes and organizes files by the folder they're stored in and by date. Picasa 2 also offers a more intuitive method of creating photo slideshows, as well as easy ways to organize and store them.

Picasa 2 also poses a challenge to Microsoft's Digital Image Suite and comparable image-editing software. Many of the basic features users want in such a program (such as the ability to crop an image, remove red-eye, and make color corrections) are indeed available in Picasa 2. So what makes Picasa 2 such a significant challenger? Not only is it easier to use than its competitors, it is also easy to download and costs nothing; there aren't even any banner ads, suggested donations, or prompts to register online, as you'll find in many freeware and shareware products. ■

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The Battle For Better Search

Enjoy New Ways To Search
The Web & Your PC



Only a few years ago, anyone who wanted to research anything needed to know how to use a variety of tools, such as a library card catalog, the "Reader's Guide To Periodical Literature," and an encyclopedia index. Today, Web search engines have all but replaced those tools. People can search more resources, faster and more conveniently, than ever before.

As we increasingly turn to the Internet to find the information that we need, the companies that build search engines are battling to provide the most relevant search results and win the most users. Microsoft and Google are the biggest players in the search engine war. As they and other companies fight to dominate search, they grace us with more and better ways to find the information we're looking for—not just on the Web but on our own computers, too.

Searching The Web

Massive Internet file-searching tools started in 1990 with Archie, which hunted down FTP files. But things really started rolling in 1993 with Wandex, the first Web site search engine. It was a revolutionary, if rudimentary, tool that would let you search on any topic from the few

thousand Web pages that were available at the time. Today's search engines have considerably more to deal with: Google indexes more than 8 billion pages. Microsoft's search engine, MSN Search, indexes some 5 billion pages. It doesn't matter how you count it; there's a lot of information out there.

The irony is that it's not quantity of information that we Internet searchers need. We are usually concerned with quality: We want to find the two or three Web sites that provide exactly the information we're looking for, be it research for a term paper, information about a health issue, or just gossip about a favorite TV show.

So while you want your search engine to have access to a wide array of Web sites, it is more important that it be smart about which sites it shows you.

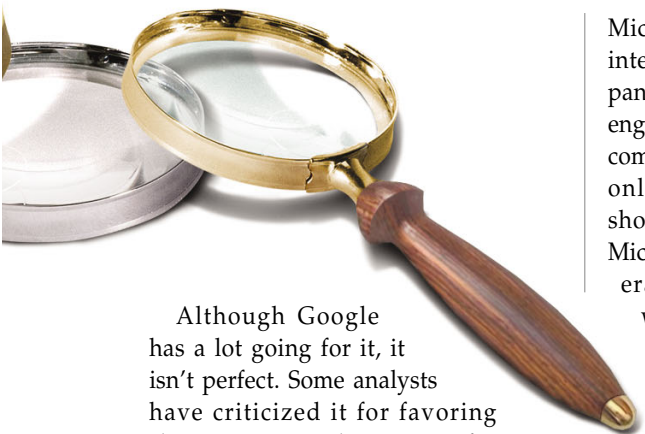
Google Search

Google (www.google.com) seems to be everyone's favorite search engine. To "Google" something has become part of the lexicon, meaning searching for information online. Google's loyal following is in part due to its simple and clean interface, low-key but helpful advertisements, and relevant search results. Google uses a system called PageRank, which moves more-frequently linked (and presumably better) Web pages toward the top of the search results.

Google lets you search more than just the Web. You can search the largest archive of Usenet newsgroup postings at groups.google.com, hunt for images at images.google.com, and find local businesses with Google Local (local.google.com), among other features. Gmail (gmail.google.com) is Google's Web-based email system, which provides 1GB of email storage space. An impressive list of Google services is available by clicking More from Google's home page or by pointing your Web browser to www.google.com/options.



Google, the most popular search engine, faces new competition.

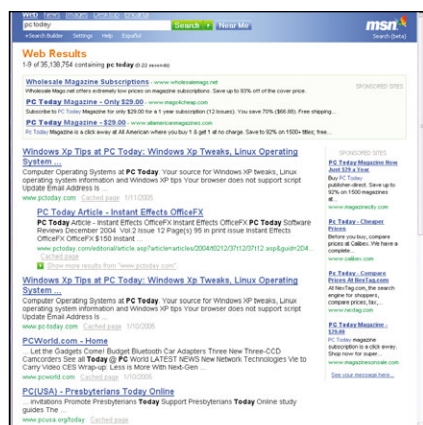


Although Google has a lot going for it, it isn't perfect. Some analysts have criticized it for favoring shopping over substantive information. For instance, if you search for "air conditioners," you're likely to see dozens of hits of air conditioner catalogs and price comparison sites rather than information about how they work or unbiased product reviews.

"The problem with Web search is that it's easy to switch—just type M-S-N instead of G-O-O-G-L-E. When you look at other types of products, an office suite, a Web browser, that is not the case," Joe Wilcox, senior analyst at Jupiter Research, says. "So what Google is trying to do is offer the consumer more benefit but at the same time making it harder to switch; if you start using Gmail, for example, it will be harder to switch away."

MSN Search

The up-and-coming search engine—and Google's biggest competition—is



Microsoft's MSN Search tends to serve up very different hits than Google.

Microsoft's MSN Search. Microsoft is interested in search because the company knows that a well-rounded search engine such as Google is capable of becoming everyone's front door to every online activity: browsing the Web, shopping, email, games, anything. If Microsoft allows that to happen, its operating system and other software will no longer be the front door.

Microsoft wants to remain the gateway to information on, and accessed from, your PC.

As of this writing, MSN Search is still in beta testing, available at beta.search.msn.com, but it is expected to move to a new, permanent URL sometime this year. Its search results tend to be very different from Google's; the sites listed on MSN Search's first two pages of hits usually don't have a lot of overlap with Google's top hits. We tend to prefer Google's choices, but this varies. Every search is different, and MSN is assumedly still refining its search process.

The interface is similar to Google's—basic and not overwhelming. Don't be fooled, though; there is power under the hood. The Search Builder feature lets you create customized searches, for instance, by changing the ranking to favor sites that have been updated recently or are static, sites that are very popular or less popular, and phrases that are an exact match or only approximately what you are looking for.

Microsoft adds value to search with its own information, too. You can search Microsoft's Encarta encyclopedia and, like Google, search image and news archives.

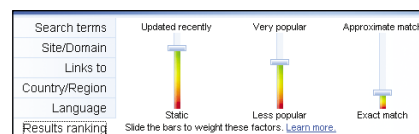
Google began as a research project in 1996 and rose to prominence in 2001. By comparison, MSN Search was launched as a beta test in November 2004. Many people believe that Microsoft's new search engine could eventually rival Google's, but for now Microsoft is playing catch-up in the search wars.

"Testing" is the absolute descriptive word for Microsoft Web search right now," Wilcox says. There's no telling whether people will embrace Microsoft's

search tool. It has an advantage because it will be the default search tool in Microsoft Internet Explorer, which many users don't bother to change even if they prefer another search engine.

Which Is Better?

Microsoft is a huge company that does many things—operating systems, office suites, video games, mobile devices, and so on—and doesn't always stick with what it starts. (Its nascent line of networking hardware was axed last year.)



MSN Search lets you customize rankings based on your preferences.

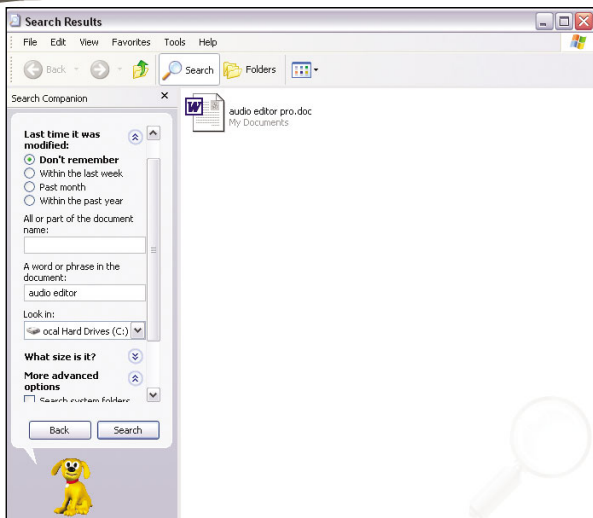
For now, it's impossible to know if Microsoft will devote the necessary resources to make MSN search the best search engine on the Web, or if the company's attentions are too scattered to compete with Google's single-mindedness.

Which search engine is better? The answer is completely subjective. Try them both and find out which one works best for the searches that you do. Of course, you don't have to swear allegiance to either. You can switch between them or use one of the many other search engines.

Search Comes To The Desktop

Forget about searching a million or a billion Web pages—sometimes the problem of finding information is a lot closer to home. The hard drive in your PC might hold 40GB, 80GB, or 250GB of data—practically nothing compared to the vastness of the Web, but that's still plenty of space to misplace information that you know is stored in some file, somewhere.

The solution is a personal search engine, a program that indexes the information on your computer and then lets you hunt through it—just like a Web search engine but on a smaller scale. If



The Search function that's built into Windows XP doesn't hold a candle to add-on search software.

you're looking for a particular letter that you wrote years ago, or the tax spreadsheet where you wrote off 30 pounds of chocolate, or class notes that you vaguely remember typing, a personal search tool can locate it for you.

Unlike a Web search engine, in order to use a personal search engine you need to install one first. There are many to choose from. In fact, there's one built into Windows XP—although free programs from other companies do a better, faster job.

The search tool that's built into WinXP (to access it, choose Search from the Start menu) might seem adequate—until you try some of the third-party search programs. It is slow, often taking 15 seconds to a minute to search a moderately filled hard drive. While it can search the contents of several types of files (such as Microsoft Word documents) other tools can scan many other types. And while the built-in tool can be useful for finding files when you remember an exact phrase, it won't help you out if those words are actually near each other or in a different order. The third-party tools can be much more forgiving.

Google Desktop Search

Currently in beta testing, Google Desktop Search (desktop.google.com) is a free program that adds Google's style of searching to your own hard drive. After installing the program, the program makes an index of your system, which can take from a few minutes to an hour, depending on the amount of information on your hard drive.

Just like Google's

Web search, Desktop Search is accessed through your Web browser. The output has the familiar look and feel of Google Web search, which makes it very easy to use. Instead of opening Web pages, clicking a link on the hits page could open a word processor document, Excel spreadsheet, or email message in Outlook Express.

Google's search can hunt through your email, the Web pages that you've visited recently, and the AOL Instant Messenger conversations that you've had—even if you haven't explicitly saved those conversations to separate files.

Searches are lightning fast: Results appear a split second after you click the Search button. You can even choose to show Desktop Search hits on Google Web Search result pages: Local hits are shown at the top of the search results page. This way you don't even have to remember to search your own files: They're

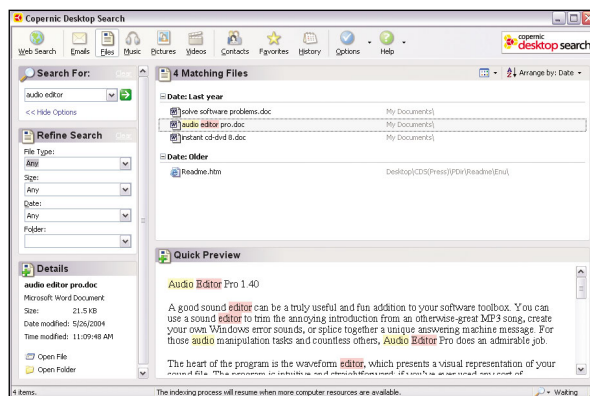
searched as part of the Googling you do everyday.

Copernic Desktop Search

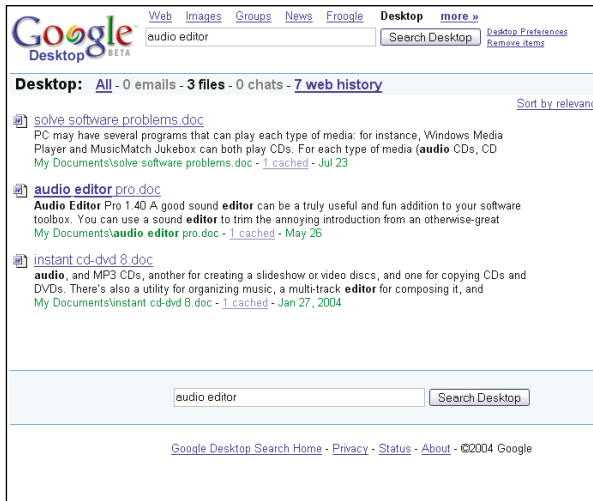
Copernic Desktop Search (free, www.copernic.com/en/products/desktop-search) is a PC search program that is, in many ways, even better than Google's tool.

Instead of accessing it through your Web browser, Copernic Desktop Search is a standalone application. That's not necessarily a better or worse way to do it, it's just a matter of preference. Copernic also adds a search field to the Windows Taskbar for convenient access. Searches are instantaneous, and when you select one of the items that it finds, the portion of the file that matches your keywords appears in a Preview Pane. This is a great way to hone in on the information you need without opening one file after another. If it finds too many files, you can refine your search by showing only files created by a certain program or modified within the last week, month, or year.

Copernic stands out because it can search through just about every type of file, including email messages, ZIP files, and even files on other PCs on your network. It can also search the browser history and bookmark files for Mozilla Firefox, not just Internet Explorer. Copernic is very configurable: For in-



Copernic Desktop Search can find text in PDF, HTML, Word documents, PowerPoint, and other types of files.



Google Desktop Search looks like the Google Web search engine but searches files on your PC, including email messages and instant message conversations.

stance, you can choose which directories to search and specify how often it should update its index.

Yahoo! Desktop Search

Yahoo! is the latest Web search company to get in on the Desktop search game with Yahoo! Desktop Search (desktop.yahoo.com, in beta). Like the other PC search tools, this free program can index and search your email messages, Microsoft Office files, PDF files, and many other types of documents.

Like Copernic, it is a standalone program. Its default search mode is more thorough than the others and can be a bit overwhelming: It found our search phrases in executable files and Windows help files, not just in the files we had created. A large preview pane shows full-page views of the files that match your search. Once you find the information you're looking for, you can open, print, or email that file with a click.

You can switch between Web search engines on a lark, trying one then another for the same search. But you can't switch Desktop search tools so easily: Before it can work, you need to install the tool so that it can index your hard

drive. It isn't a good idea to install more than one Desktop search tool at a time because this can slow down your system. If you try one for a while and then want to try another, uninstall the old one first.

Truly Useful?

Do you need a Desktop search program? That depends on how much text-based information is on your computer and how well-organized you keep it. Searching the

Web makes sense for everyone, but Desktop search tools are a different matter, Wilcox says. "What is it that people need to find? Your email is a pretty good candidate. Lots of people get lots of email and probably don't organize it very well, if at all." Instant messaging is another good use for Desktop search, he says. However, "the letter you wrote to your kid's teacher, you can probably find that without a search utility."

An area where Desktop search has room to grow, and to become truly useful to a greater number of people, is in digital content. "That's where the Desktop search folks really are not operating yet," Wilcox says. When you import pictures from your digital camera, the default file names are meaningless. Similarly, MP3 and digital video file names aren't always very descriptive. "How do you make sense of that? Long

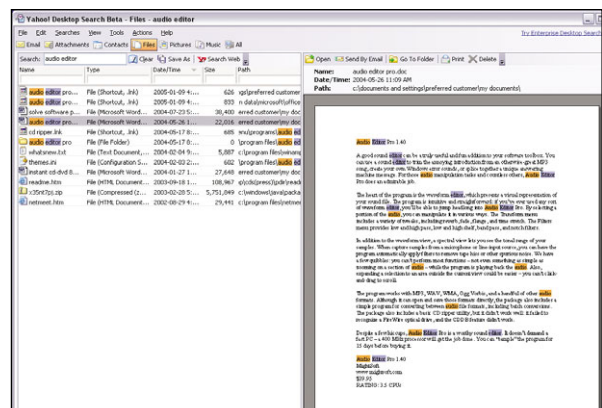
term, what Desktop search could do to make consumers' lives easier is creating some meaning out of all this digital content that consumers are creating, particularly digital photos," he says.

The Future Of Search

For the companies that provide search services, the battle for users will continue. "For the next year, it will be more of the same: a battle of brand, of mind-share, and of use," Wilcox says. "The good thing for consumers is that there's more choice. All these companies battling means you have all these different utilities to choose from. Use a search engine that you like and let them fight it out."

As more and more information becomes available to us, both on the Web and on your computers' ever-expanding hard drives, we need better tools to sort through all of it and deliver the stuff that we really want. Search tools will continue to evolve, and we users will benefit from smarter, faster ways to find just the information we need. So if you are looking for a better way to locate a bit of information, you won't have to search very far. **PCT**

by Kevin Savetz



Yahoo! Desktop Search, the newcomer to the Desktop search scene, displays a full-page preview of each hit.

The Battle For The Browser

2005 Could Be A Pivotal Year

Determining statistical usage of Web browsers is not an exact science. Browser makers can tell you how many times their programs have been downloaded or purchased. Web site administrators can indicate which browsers are used by the visitors to their sites, and a survey of administrators will give you a broader sense of usage, but no source is definitive.

Yet one trend is emerging from these snapshots: Though Internet Explorer 6 is the still most widely used browser, its popularity is slipping.

Consider these statistics: Refsnes Data, a Norwegian software development and consulting company, tracks Web browser usage. In January 2004, IE6 garnered 71.3% of the market. Its closest competitor? IE5, with 12.8%. Mozilla ranked third at 8.2%.

A year later, in January 2005, Refsnes Data tracked IE 6 at 65.4%, down almost six points, and IE 5 at just 4.5%.

Leapfrogging into second place was Firefox, the new browser from Mozilla, with 19.1%. (See www.w3schools.com/browsers/browsers_stats.asp for the complete list.)

Another browser-tracking firm, Browser News, from Canadian Web site design company Upsdell.com, shows IE 6 is used by anywhere from

69 to 80% of Web users. It lumps certain browsers (Netscape Navigator 6 and 7, plus Mozilla) into one category, and that group owns up to 17% of the market.

Internationally, IE 6 is less popular than in the United States. But analysts note that in 2004, the browser dropped in use in America, as well. To be fair, this downturn coincided with the myriad of security issues Microsoft was dealing with last spring and summer before the release of Windows XP SP2, which included many improvements for IE 6.

This could prove to be a pivotal year in the battle for the browser. Will IE rebound from its drop last year? Or will Firefox, an open-source browser previously known as Mozilla Firebird, keep gaining ground?

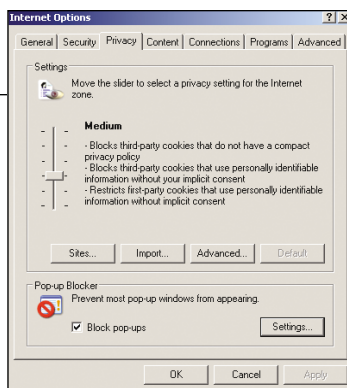
We won't be so bold as to make a prediction. But we will show you how the two browsers stack up against one another in key areas.

Cookie Controls

Both browsers offer avenues for blocking and accepting cookies. IE offers more setting options, while Firefox is a bit easier to use.

IE. The Privacy tab (select Tools and Internet Options) has six settings, running the gamut from blocking all cookies to accepting all cookies. In between you can set the browser to accept or reject cookies based on such things as the source site's privacy policy, whether it uses your personally identifiable

The default setting in Internet Explorer blocks certain cookies. You can choose another level for filtering cookies, plus make exceptions to these settings for certain Web sites.



information without your prior consent, and whether the cookie is a first- or third-party file. In addition, Advanced settings let you override automatic cookie handling so that IE will treat first- and third-party cookies differently in the Internet zone, if you prefer.

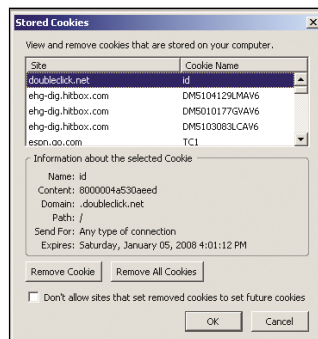
Those settings will apply to all Web sites you visit, unless you make exceptions on a per-site basis. To do that, click Sites, enter the URL, and specify whether you want cookies blocked or accepted regardless of the site's privacy policy.

With IE, you can place Web sites in one of four security zones. Cookies from sites placed in the Trusted sites zone will always be accepted, while those from sites placed in the Restricted zone will always be rejected.

Finally, IE lets you scan the cookies placed on your hard drive and delete them en masse or individually. On the General tab, click Settings and View Files to see the name of each cookie along with its address, type, size, expiration date, and when it was last modified, accessed, and checked.

Firefox. Whereas the default setting in IE (Medium) blocks and restricts certain cookies, Firefox accepts all cookies unless you change its settings. Click Tools, Options, Privacy, and Cookies. You can block all cookies, or you can accept them only from the originating site (first-party cookies). In addition, you can opt to keep cookies on your hard drive until they expire or until you close the browser.

For more control, set the browser to ask for your input each time a site attempts to place a cookie on your hard drive. That sounds annoying, but it's a good choice initially because the dialog box that appears will allow you to set a permanent action for each site. Similarly, you can use the Site List (accessed through the Exceptions button) to enter the URLs of



Like Internet Explorer, Firefox offers an easy way to look at and remove cookies stored on your hard drive.

sites, and then set them at Allow, Allow For Session, or Block.

As with IE, you can look at all the stored cookies. Click View

Cookies and highlight one from the list. Firefox displays the name, content, domain, path, and expiration date for each file. You can delete cookies individually or all at once.

Download Managers

IE doesn't have a download manager by name, though it does offer a mechanism for deciding which action to take on Web-based files and for monitoring those you choose to download. Compared with Firefox's Download Manager, it's a no-frills feature.

IE. When you attempt to download a file through IE, it will flash you a security warning that asks if you want to run or save the file. In addition, it lists the name, type, and source of the file.

If you choose to save the file, IE opens the Save As screen, where you can choose the location to place the file.

During the download, you'll see a progress bar and other stats about the download, such as transfer rate and estimated time left. Then, once the download is complete, IE will inform you of the size of the file it just downloaded, how much time it took, where it

was saved, and what the transfer rate was. Finally, IE gives you shortcuts to run the file or open the folder in which the file was placed from the download screen.

Firefox. Firefox's Download Manager is accessible at all times

(click Tools and Downloads), even when you're not in the middle of a file download. The Downloads screen will list your most recent downloads. From here you can open or remove the file, or use the Clean Up button to remove finished, failed, or canceled downloads from the list.

Before you download anything using Firefox, however, it's best to set your preferences first. Click Tools, Options, and Downloads to access these settings. By default, Firefox will save every download to the Desktop, a curious choice. You can change this default location, or you pick an option that makes Firefox, like IE, ask you where to save the file each time you attempt a download.

Another setting you can tweak here is what action Firefox performs for certain file types. This section will list file types you've downloaded. Highlight one, click the Change Action button, and then choose an automatic action: Open the file in the default application (as determined by Windows), with a different application, or save it.

Back on the Downloads Options page, you also can click the Plug-ins button to display a screen where you can enable/disable plug-ins associated with file types.

When you attempt to download a file in Firefox, you'll receive a message similar to what IE gives. A screen displays the name, type, and location of the file you've selected, and then asks if you want to open or save it. Once you choose to save the file, a link to the Download Manager appears in the pop-up box at the bottom of your screen. If it's a quick download,

you'll just see a message that the download was successful. You can click the link to see the Download Manager, which lists the most recent downloads.

If, however, the download is longer, when you open the Download Manager



Though it doesn't have a download manager, Internet Explorer offers ways to monitor what you download.

you'll see a status bar with information about how much of the file has been downloaded and how much time remains. In this case you'll have the option of pausing, resuming, or canceling the download.

Pop-Up Blockers

For users who want settings to tinker with, IE's blocker is the one. But we give the nod to Firefox's simpler but highly effective approach.

IE. One of the best improvements Microsoft made to IE through the WinXP SP2 was a built-in pop-up blocker. By default it is set to block almost all pop-up ads. Exceptions include certain ads with animated content, ads from sites placed in the Local intranet and Trusted sites zones, or ads launched by programs on your hard drive.

When an ad is blocked, you'll see a notification bar just under the Address Bar. Right-click on it to access a small menu of options. These include temporarily allowing pop-ups, always allowing them from this site, turning off the pop-up blocker, and a More Settings command.

In the Pop-Up Blocker settings window, you can enter the URL of sites you'll allow pop-ups from, a list you can modify anytime. No other setting will override this list. In addition, you can turn on/off audible and visual notifications, and set the filter level to low, medium (the default), or high.

Firefox. When the Firefox pop-up blocker squashes an ad, you'll see a notification bar. Click it for options to allow ads from the current site, to turn off the notification bar, or to access more settings. The last one

opens the Allowed Sites lists; just enter the URL of any site from which you want to permit ads.

Firefox offers no other settings—its blocker is an all-or-nothing tool. If a site is not on the Allowed Sites list, no pop-ups of any kind will be allowed.

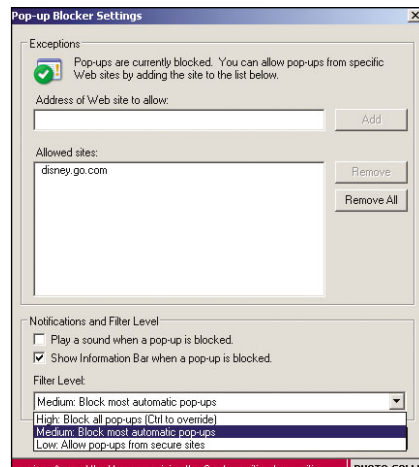
Tabbed Browsing

Firefox one-ups IE by offering a cool feature that Microsoft's browser lacks. This new way to open links from a Web page is especially useful on news and shopping sites. Let's say you go to your favorite online newspaper. You peruse the home page and decide you want to read four articles. Instead of clicking back and forth from a story of interest to the home page to open another link, you can open each from the home page so that they are saved on tabbed pages.

Though Firefox offers multiple ways to do this, here's the most direct approach. Middle-click (or use the mouse wheel) on each of the linked stories you want to read. Now when you look at the home page, you'll see it is the tabbed page on top, and the other four are accessible just by clicking the tab with the name of the article on it. The content on your screen will resemble the tops of tabbed folders in a filing cabinet. You can close a tab several ways, but again the best approach is just to middle-click the tab.

By itself this would be an excellent feature, but Firefox makes it better in two ways. First, you can bookmark a site with tabs. Choose the Bookmark This Page command from the Bookmarks menu, and check the Bookmark All Tabs In A Folder option. Then choose the Open In Tabs command when you go to open the site later.

Even better, you can use the tabs feature to create a unique home page. With one page already open, select File and New Tab to open a blank



Internet Explorer offers far more settings for its pop-up blocker than Mozilla's Firefox, including a filter level.

tab. On this new tab open another Web site you'd like to include in your home page. Follow the same steps to open as many tabbed pages as you'd like. Then choose Options from the Tools menu and click the Use Current Pages button on the General screen. Your new home page will include all of your tabbed sites.

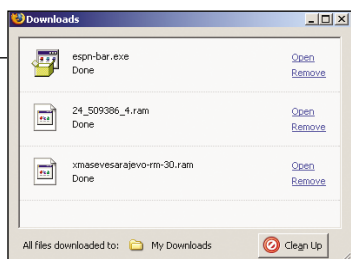
Search Tools

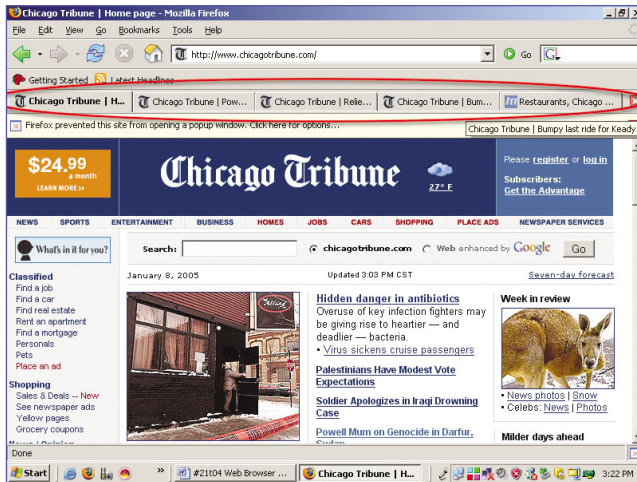
This is one area where a lack of choices may be more appealing, depending on your preferences. IE offers the Search Assistant (in IE 5) and Search Companion (in IE 6), while Firefox puts the search engines and other search sites front and center.

IE. Users not accustomed to knowing where to look on the Internet for specific types of information will appreciate IE's various search helps. One is the Search Assistant, accessed by clicking View, Explorer Bar, and Search. It lists six types of things to look for—a Web page, a person's address, a business, map, word, and picture—and then displays appropriate searching options for each type of search. You also can use this panel to look through previous searches.

For more tailored searches, click the Customize button. On the Customize

Firefox's Download Manager is always accessible, even when you're not in the middle of a file transfer.



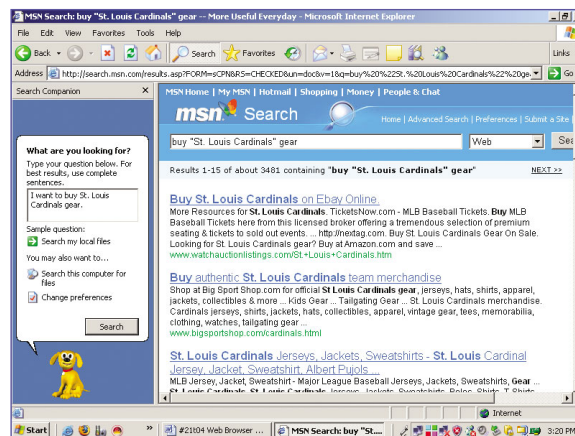


Search Settings screen, you can pick and choose which search sites to use for the categories of searches mentioned above. Each has default settings—the Web page search uses MSN.com, for instance—but you can choose multiple engines. In addition to MSN.com, you can use six other search engines, including Yahoo!, AltaVista, and Lycos. The word search relies on Encarta for encyclopedia searches, Merriam-Webster and Dictionary.com for dictionary searches, and Merriam-Webster and Thesaurus.com for thesaurus searches.

Two more options that bear mention are accessed through the Autosearch settings button. On this screen you can determine which search engine conducts a search when you use the Address Bar to find a Web site and what action IE should take when the search is finished: go to most likely site, display results in main window, or a combination of both of those.

If you prefer not to use the Search Assistant, you have two other options, which are displayed at the top of the Customize Search Settings screen. The first option is to pare the search panel down to a single search service. Ten services are listed, including Bigfoot,

when you hit the Search command from the Start menu. The Search The Internet link displays a field where you can type in single words, phrases, and, as IE recommends, complete sentences. By default the Search Companion uses MSN.com to scour the Web. If you do a general search, such as one for “hot dogs,” the Search Companion will try to help you more narrowly focus your search by offering links to “find information about a hot dogs product or service.” It also may list links from related sponsors, such as hot dog manufacturers or concession equipment makers.



Internet Explorer's Search Companion (you can disable the animated character) is especially good for users who don't spend a lot of time on the Web.

With Tabbed Browsing, you can use Firefox to keep all the must-read articles in a site in front of you.

Switchboard, InfoSpace, and Lycos.

The other option is to utilize IE's Search Companion, the search option many users think of as the “annoying puppy.” This feature opens

Search Companion is a good option, especially if you select a different default search engine. Besides MSN, 11 other engines are available, including Google.

Firefox. Firefox doesn't offer the built-in help that IE does, but more experienced Web users may not miss them. If you prefer to go straight to search engines and services, then you'll like the search field included in the Navigation Toolbar. Google is the default search engine, and you'll notice its logo in the field. Just type in your search words, and Google will display the results.

If you prefer to use another service, click the Down arrow in the search field. The menu lists Yahoo!, Amazon.com, Dictionary.com, Creative Commons, and eBay. When you select a different service, it becomes the new default. To add more services, click Add Engines from the menu. A page from the Mozilla Web site lists links to more services, such as Ask Jeeves and IMDb (The Internet Movie Database).

Poised To Conquer?

Use Firefox for a while, and you'll understand why some prognosticators think it will overtake IE. It offers some improved features over IE yet has a familiar environment in which to browse.

Heck, you can even effortlessly import your bookmarked sites, history, passwords, cookies, and other information from IE to Firefox. (Choose File and Import to do this.)

At the same time, IE is still holding a solid lead, and we're sure Microsoft will continue to make tweaks to its browser to improve it.

So do what we did: Download Firefox, use it along with IE for a while, and decide for yourself which is better. You may find you have reasons for keeping both. **PC**

by Rachel Derowitsch

The Battle Over Web-Based Email

We Compare Gmail, Hotmail & Yahoo! Mail

Web-based email is growing up. The simplistic online services of yesterday have added many of the standard tools found in traditional, stand-alone email software. Web-based email is accessible anywhere you can find an Internet connection and a browser, including public libraries, airports, or hotspots such as New York City's Bryant Park.

Spurred on by a new competitor, Google's Gmail, old hands such as MSN Hotmail and Yahoo! Mail have begun to increase storage space, as well, making Web-based email a viable alternative to computer-based POP (Post-Office Protocol) clients. Throughout the next few pages, we describe the main features of the three online email kings so you can decide which best fits your needs. One note: Because Gmail is still in beta testing, some details we explore may change before the service goes into wide release.

Storage

When Google announced last spring that its impending Web-based email service would offer 1GB of storage, Microsoft and Yahoo! had to up their games. MSN Hotmail now offers new users 25MB of storage for the first 30 days after registering for their accounts. After that Microsoft bumps total storage up to 250MB. This trial period is supposedly part of Hotmail's "continued campaign" to reduce junk email. You can send and receive messages up to 10MB each, including attachments.

Yahoo! doesn't take the time to authenticate your account; new users automatically get 250MB of storage in its free accounts (and 2GB for paid accounts). Yahoo! increased its message size, as well, to 10MB.

Obviously, with four times the capacity, Gmail trumps the other two Web-based email services in the storage department. To move beyond that 1GB threshold in Yahoo! Mail or Hotmail, you need to scrap together some cash for the premium versions.

Gmail doesn't advertise a premium plan; whether that will come after the free beta rollout remains

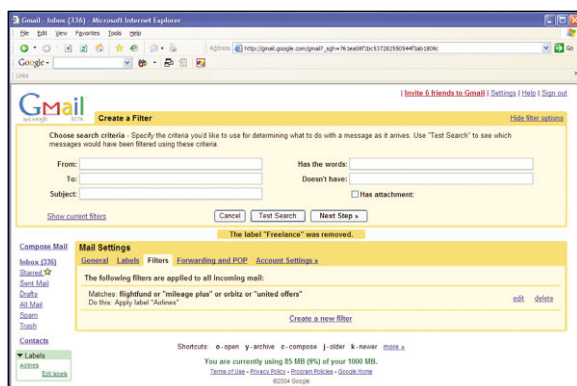
to be seen. Yahoo! Mail and Hotmail, on the other hand, try to entice you to upgrade at every opportunity. Hotmail Plus offers 2GB of storage capacity for \$19.95 a year. It also increases maximum message size to 20MB and eliminates banner ads.

Not to be outdone, Yahoo! offers its Mail Plus for the same annual price. This premium service combines all the free account's features with 2GB of storage and a 20MB limit on individual messages. Yahoo! also throws in a few other features (such as POP access and forwarding, better spam control, and freedom from graphical ads), which we'll talk about later in this article.

Interface

Many computer users are accustomed to traditional client/server interfaces, such as Microsoft Outlook, with its folder storage system. Hotmail and Yahoo! Mail use the same sort of system online, with different virtual folders containing messages. They also offer filter capability to automatically sort incoming messages into specific folders according to user-specified rules. Hotmail allows 10 custom filters in its free account; Yahoo! Mail tops that with 15. Pay the premium fee and you'll get 35 filters in Hotmail and 50 in Yahoo! Mail.

Instead of sorting and saving your email in various folders, Gmail takes a new approach. All mail starts out in the inbox and then Gmail moves it all into one big archive folder. If you like the feel



Use filters and labels to sort messages in Gmail.



of folders, you can still assign labels to various messages for organization, but the service encourages the use of its fast search capability instead for finding messages on the fly.

Gmail messages can have multiple labels. You also can use Gmail's labels in conjunction with as many as 20 filters to automatically label and archive email. You can use the filters to automatically forward messages to other people.

Also innovative is Gmail's method of grouping messages and their replies into conversations, which gives related email messages a thread-like feel. Numbers in parentheses next to the authors' names indicate how many messages make up a conversation. Click once to open the conversation and then click subject lines to open particular messages.

Which interface you like depends on personal preference, but the Gmail system is intriguing. On its surface Gmail looks like a standard email service, with an inbox and other folders (actually labels). Once you get the feel for the one-folder archiving system, however, you may wonder what all of those folders were for in the first place.

Search Component

If Hotmail has a search function, it's hiding it under a bushel basket. Thankfully, Gmail and Yahoo! Mail are loud and proud about their search capabilities.

Yahoo! Mail is no slouch when it comes to searching existing messages. The basic search will scan the Senders and Subjects of messages; a more advanced search lets you explore individual message fields or a combination. You also set the parameters to Contains, Does Not Contain, or Is Exactly the term(s) you have entered and specify the folders to search.

If you've been archiving your Gmail instead of deleting, you can use the service's search feature to locate any message you've sent or received. Using its built-in Google search, Gmail handles searches deftly, with impressive results.

Compose Messages

Formatting is the one place where the Gmail beta drags. Rumor has it the rollout version will have formatting capability, but for now, you'll have to express emphasis and enthusiasm the old-style way, with all capitals, punctuation, or language. Hotmail and Yahoo! Mail let you format your text vividly, adding style, font, bullets, and even emoticons.

All three services offer spell checkers, but Hotmail goes a step further with a built-in dictionary and thesaurus courtesy of Encarta. Each service also offers the convenience of draft folders, so if you're writing a message on the fly, you can save it and return to it later when you have a bit more time.

If you don't remember everyone's email address, the Address AutoComplete feature in Yahoo! suggests address matches as you begin to type, based on the contents of your Address Book. Gmail works similarly.

Hotmail's Quickname feature is a less automated version that takes more work. With Quickname, you choose an identifier for each email address in your Contacts list. When composing an email, you just type the Quickname and Hotmail fills in the email address.

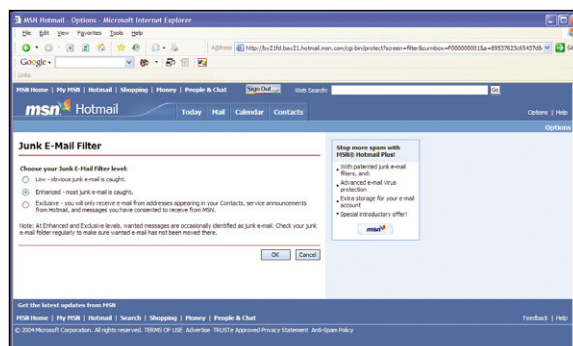
Address Book

Gmail's contact list is lean and easy to use, but it offers the least amount of customization. You can keep real-world info, such as street addresses and phone numbers, in Gmail's Contacts list, but it isn't built to take the place of a real address book. For example, there's no way to sort contacts. You also cannot define sets of contacts for easy group mailing.

The Yahoo! Address Book does let you group your contacts into as many as 20 categories, making it easy to find a specific contact or create distribution lists. The QuickBuilder tool can search existing Yahoo! Mail messages for contact info and add it to your Address Book automatically.

Hotmail has multiple ways to add contacts, with buttons to add names when you're composing messages or reading them. Its Group feature lets you move contacts into groups, as well.

Mass emails are limited by all three services. Hotmail is again the most restrictive, limiting the number of recipients to 50 email addresses per message, even spread out among the To, Cc, and Bcc lines. Yahoo! Mail and Gmail each allow



With Hotmail you can set your own junk mail tolerance level.

you to send a message to as many as 100 email addresses.

Import Contacts

Adding contacts one by one can be tedious. All three programs can import addresses from a variety of email programs to get you up and running in no

time. Yahoo! Mail imports information using a wizard that prompts you each step of the way. For example, the wizard can find your Outlook address book and offers a list of contacts to import. For other types of address books, you have to first save the information as a CSV (comma separated values) file before you can import it.

Hotmail can also import contact information, but even with Outlook you have to save the contacts to a CSV file first. After you do that, a Hotmail wizard helps you through the rest. Gmail works about the same way. You must format contacts to CSV files first and then import the files and transfer them to Gmail. In addition to Outlook files, you can import addresses from Hotmail and Yahoo! Mail, among others.

Antivirus Protection

Virus protection is essential, especially with spam-prone Web-based email. Yahoo! Mail's service isn't automated, but it requires a scan before you can open an attachment. When you receive an email that includes an attachment, click the Scan And Download Attachment prompt and Yahoo! Mail's built-in Norton AntiVirus tool will scan the attachment. If the software identifies a virus, Yahoo! Mail notifies you and seizes the opportunity to try to sell you an upgrade to the premium service for automatic cleaning.

Hotmail blocks a plethora of file types as attachments; if you receive an unauthorized format, you won't be able to download it. Hotmail doesn't scan zipped files; however, so forbidden file formats can be hidden in compressed attachments.

Google takes, perhaps, the most hard-lined approach: It won't let messages through to your Gmail account if they have attachments that contain the .EXE file extension. Gmail blocks those messages, including any with EXE files in a compressed file. If anyone sends executable files to your account, Gmail bounces the message back to the sender.

Spam Management

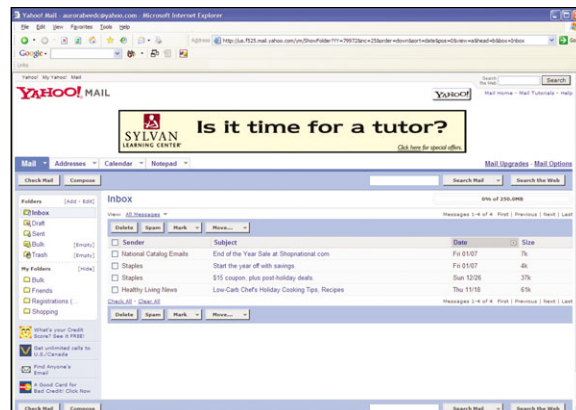
Gmail's approach to spam management is similar to the SpamBayes utility. The more messages you mark as spam, the better Gmail gets at weeding out those types of messages before you see them. Essentially, you must train Gmail to recognize spam; if unwanted messages make it to your Inbox, select the checkbox next to the message and click Report Spam. It's a good idea to check the Spam folder once in awhile to make sure the system is working properly. If Gmail erroneously identifies a message as spam, you can select the message's checkbox and click the Not Spam button or add the sender to your Contacts list and that should take care of it.

Yahoo! Mail uses SpamGuard filtering that sends unsolicited emails to a Bulk Mail folder. As with Gmail, you should check the reject folder periodically to ensure that it is indeed capturing spam and not important messages you need. Yahoo! Mail also uses DomainKeys, a cryptographic email authentication program designed to combat email spoofing (where spammers co-opt a name you know in the From: field) and the resulting phishing attempts. (This occurs when information on a Web site attempts to trick you into revealing confidential information.)

Hotmail uses a junk mail filter to keep spam at bay, but you specify how restrictive you want the filter to be. Microsoft recommends using this filter in combination with Hotmail's Safe List filter, which keeps track of senders you deem "safe" and directs their messages to your inbox.

POP Capability

Yahoo! Mail (and the paid version of Hotmail) can download messages from any POP account into the Web-based



The Yahoo! Address Book is easy to use and organize.

inbox. That makes it easy to check another account, such as your standard ISP account, while you are on the road.

Gmail, at least as of this writing, lets you check your Web mail from a POP client, such as Outlook or Eudora. Yahoo! Mail and Hotmail also offer this capability to paid subscribers. Gmail works particularly well in this respect if you choose to configure the POP capability. Send an email using Gmail, and it will show up in your Outlook folder as if you had sent the message using Outlook.

Who Wins The Battle?

These wouldn't be free services if they didn't have advertising, so there's not a lot to differentiate between the three. Hotmail and Yahoo! Mail pointedly say they don't invade your privacy with their banner ads, unlike Gmail, which offers ads based on the content of your email message. This sounds a lot more ominous than it is; Gmail uses a completely automated process to target ads, and no human being reads the content of your messages.

Although Hotmail may currently be the best-known free email provider, Yahoo! Mail and Gmail offer better services. In the end, however, which Web-based email service you choose depends on your needs and preferences. **PCT**

by Anne Steyer Phelps

Cordless? Cellular? Both please.



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Home phone meets cell phone—together at last. With Uniden's new Bluetooth enabled Digital 5.8GHz Cordless Phone, now you can use your land line for crystal-clear communications anywhere in the house, or tap into your cell phone minutes to take advantage of free long distance*. The Digital 5.8GHz Cordless



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The Battle Over Portable Tech Entertainment

See How Devices Match Up & What The Future Holds For Major Competitors

In the battle for computer-based portable tech entertainment, there are two major players: Microsoft and Apple. As Microsoft pushes forward in its fight with Apple for control of the portable entertainment industry, the company recently took the necessary steps to catch up with its competitor.

Since Apple's April 2003 launch of the iTunes music store along with its tight integration with the iTunes software and the iPod, Microsoft's Windows Media Player and its loose collection of third-party portable devices and music services has been lagging. So much so that Apple had time to cross the lines and add Windows compatibility to its iTunes software and its iPod products.

However, with the September 2004 release of Windows Media Player 10, Microsoft made a dramatic run from behind and beefed up its software warrior with integrated music stores, the MSN Music store and other online stores via the Digital Media Mall, and improved support for portable devices with its PlaysForSure logo program. At the same time, Microsoft moved to the forefront when it announced its new category of handheld digital entertainment devices called Portable

Media Centers. These devices are specifically designed to work with Windows Media Player 10, and they let you take digital video, as well as music and photos, with you wherever you go.

At the 2005 Consumer Electronics Show, Microsoft's Bill Gates made three announcements in his keynote regarding services designed to enhance the entertainment value of the Portable Media Centers. He mentioned that Microsoft's MSN site is going to feature more video clips in the sports, news, and entertainment categories, all of which are specifically designed for downloading and viewing on the Portable Media Center devices. His second announcement was about how Microsoft has partnered with MTV Networks, which will begin offering content from its programming (either for free or a subscription-based model) that is formatted for downloading and playing on Portable Media Center players. In his third announcement, Gates said Microsoft has partnered with TiVo and will work with

the company on its TiVoToGo initiative, which is designed to offer mobile versions of TiVo-recorded programs. In this case, TiVo users will be able to transfer recorded programs to a Windows XP PC and then move those programs to a Portable Media Center via Windows Media Player 10. Other services, namely the online movie site CinemaNow and Major League Baseball online source MLB.com, are also providing video services designed specifically for Portable Media Center devices.

For their part, Apple has not yet entered the portable video player market. In fact, when asked about the possibility



of a video iPod, Steve Jobs has stated on several occasions that he doesn't believe there is a compelling reason to put video on the iPod, saying that there isn't enough content for the format and that the screen is too small. He then goes on to say that the iPod is all about music, which people can listen to as a background activity as opposed to watching video, which is a foreground activity. And while Jobs emphasizes that the main focus of the iPod will remain on music, Apple has indeed released the iPod Photo, which adds digital photo capabilities to the iPod's musical abilities.

Other industry players, such as RCA and Archos, which are not specifically tied to the Microsoft-Apple battle, are actively promoting their own portable video player devices, so it would be hard to imagine that Apple would completely opt out of the market. After all, Apple's iPod and iTunes essentially revolutionized the portable entertainment industry, and the company will surely have an appropriate response to Microsoft's Windows-based Portable Media Center devices. One could speculate that maybe Apple does have a portable video player in the works, it just might not be in the iPod format, which could account for Jobs' responses.

As you ponder that thought, let's take a closer look at the features, or armament if you would, that the Windows Portable Media Center brings into the battle. As we do, we'll focus on

one of the first Portable Media Center devices on the market. We'll then shift our attention to the current battlefield and investigate some of the more standard Windows-based portable music and photo players and see how they stack up against Apple's similar line of iPods.

Windows Portable Media Center

Unlike Apple, which develops the software and hardware for its technologies, Microsoft partners with third-party manufacturers to develop hardware that works with its software. Although there are exceptions to this rule, Microsoft manufactures its own mice, keyboards, and wireless networking devices, for example; the company traditionally works with hardware industry leaders in the areas in which their software is targeting. Such is the case with Windows Media Player 10 and its video capabilities.

When Microsoft announced the Windows Portable Media Center, it announced that Creative Labs would be the first company to begin offering a device to the public. As such, we'll use the Creative Zen for our example as we explore the Windows Portable Media Center. We should point out that at the time of this writing, Portable Media Center devices are also available from Samsung Electronics (Yepp YH-999) and iRiver International (PMC-120); others are sure to follow. (You can explore each of these devices on Microsoft's Device Demo page [www.microsoft.com/windowsmobile/portablemedia-center/devices.msp].)

The Creative Zen, which carries a suggested retail price of \$499.99, is about the size of a wallet, measuring 5.67 x 3.2 x 1 inches (HxWxD) and weighing 12 ounces. It sports a 3.8-inch color backlit LCD (liquid-crystal display) screen that produces a 320- x 240-pixel resolution picture. The Zen and all other Windows Portable Media Center devices display a main menu similar to the Startup menu



Apple's iPod Photo followed closely on the heels of the Portable Media Center.

in Windows XP Media Center. This simple yet familiar menu is designed to be extremely easy to navigate using the device's navigation button.

Transferring music, video, and pictures from your computer to your Portable Media Center is a snap. Just connect the device to any WinXP-based computer running Windows Media Player 10 via a USB (Universal Serial Bus) 2.0 cable, and the software will automatically establish a communication link with the device and begin synchronizing all your digital media content.

The Portable Media Center supports all popular formats including WMV (Windows Media Video), WMA (Windows Media Audio), MP3, and JPEG (Joint Photographic Experts Group). If the files are not in a format or size that the device can recognize, Windows Media Player automatically converts the file types.

To protect copyrighted material, Windows Media Player's improved DRM (Digital Rights Management) features will prevent users from transferring specific types of content, such as the contents of commercial DVDs.

The Zen comes with a 20GB hard drive that lets you store a lot of music, photo, and video files. For example, a 20GB drive can hold approximately 5,000 songs, 80 hours of video, or thousands of pictures. Of course, the typical user would store a variety of media and so, as they say, your mileage may vary. To ensure that you can enjoy all of your digital entertainment, the Zen comes with a rechargeable Li-Ion battery that has enough strength to support as much as seven hours of continuous



The Creative Zen Portable Media Center was the first device on the market when Microsoft announced the new category of handheld digital entertainment devices.



The Gateway MP3 Photo Jukebox offers comparable features to the iPod Photo.

video playback for as much as 22 hours of continuous music listening.

Portable Photo Devices

As we mentioned previously, the Portable Media Center has the capability of displaying digital photographs you download from a WinXP-based computer running Windows Media Player 10. And even though Microsoft's release last September of its Windows Media Player 10 essentially beat Apple to market with this digital photo capability, Apple followed suit very quickly and introduced its iPod Photo, which it released a month later.

In addition to displaying digital photos on its 2-inch, 220 x 176 resolution color LCD in 65,536 colors, the iPod Photo can also store and play music, which makes for a very entertaining combination. The iPod Photo comes in 40GB and 60GB models, and its rechargeable battery can provide you with as much as 15 hours of continuous music or five hours of continuous slideshows along with music.

More in the line of a direct comparison with the iPod Photo, the Windows side of the battlefield has as one of its members the Gateway MP3 Photo Jukebox, which is designed to work with Windows Media Player 10. This device features a 1.6-inch, 128 x 128 resolution color LCD, and a 4GB hard drive.

In comparing the iPod Photo to the Gateway MP3 Photo Jukebox, it's clear that the Apple version offers a better picture. However, when comparing the

iPod Photo to the photo features of the Creative Zen Portable Media Center, the Zen's larger screen and higher resolution provides the better picture.

Size Matters

Although video and photo capabilities are the up-and-coming hot categories in the battle for portable tech entertainment, the strictly digital music area of portable tech entertainment is still going strong on both the Apple and Microsoft fronts. The original iPod, now in its fourth generation, is still doing extremely well, as are many of the original Windows-based MP3 players, including the Creative Nomad and the Dell Digital Jukebox. Of course, these devices have evolved over the years and provide more advanced features than their predecessors.

What we find interesting is that as these original devices have evolved, they pretty much stayed within the original form factor. However, a parallel evolution in size, or more specifically a downsizing, has occurred. In other words, the devices are getting smaller. Of course, this miniaturization is emblematic of today's technological devices across the board as circuitry becomes more compact and more efficient.

As such, it isn't surprising that at the 2005 MacWorld Expo, Apple released the iPod shuffle, a display-less, flash memory-based iPod that looks and works like a USB thumb drive. The big innovation here is that in lieu of using a display to select and control music, this device incorporates iPod's shuffle feature, which lets you randomly select songs from the music library or playlists at the touch of a button.



Standard-sized digital music devices are still extremely popular.



The iPod Shuffle uses a random shuffle feature rather than a display screen for selecting songs.

Although the size of this device, along with the fact that it uses flash memory rather than a hard drive, isn't revolutionary, similar miniature Windows-based devices, such as the iRiver iFP and the Rio Fuse, pre-existed the iPod shuffle. And the fact that the iPod shuffle uses an alternative mechanism and doesn't make you squint at a miniature display to control your music selections is a very avant-garde feature.

The iPod shuffle also allows Apple to take another significant jab at Microsoft and its hardware partners—the device is formatted as an MS-DOS volume. This means that you can plug the iPod shuffle into the USB port on a Windows system, as well as on a Mac. This capability along with an affordable price tag (\$99 for the 512MB version and \$149 for the 1GB version) may make the iPod shuffle an attractive option for Windows users.

The Battle Rages On

So, with Windows Media Player 10, Microsoft offers a significant counter move to iTunes and the integration of the online music store. At the same time, Microsoft has thrown down the gauntlet in the portable video arena with Windows Media Player 10's support for video and the Portable Media Center along with an impressive array of content partners. So as we watch

the battle from the sidelines, we look to the future of portable entertainment devices and wait for Apple's response. **PCT**



The Rio Fuse is similar in size and function to the iPod Shuffle, but contains a miniature display.

by Greg Shultz



Great theater deserves a great setting.

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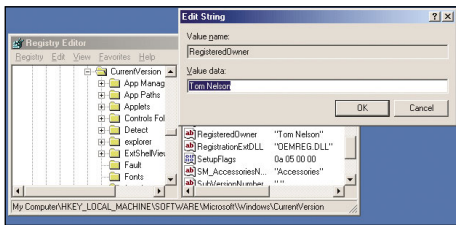
800.359.5520 www.sanus.com

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If you always seem to be rushing to complete tasks, try some of these operating system and application tips to help you get things done a little faster.

by Tom Nelson and Mary O'Connor

When I set up my computer at work, I didn't enter an organization name. My boss is complaining that the documents I create don't include the company's name. How can I fix this, short of reinstalling the OS? (Windows 98/Me/2000/XP)



As you have discovered, some applications use the Registered Owner and Registered Organization information you provide when you install the OS. But things could be worse. Some individuals make embarrassing typos when they enter user or company information.

Fortunately, it's not necessary to reinstall the OS to fix the error. You can edit these values using the Windows Registry. Click Start, and select Run. In the Run dialog box, type **regedit** and click OK or press ENTER.

In Win2000/XP, locate the following Registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\WINDOWSNT\CURRENTVERSION\

In Win98/Me, locate the following Registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\

If you enter incorrect owner or organization information (or no information at all) when you set up your computer, you can use the Windows Registry Editor to fix it.

In the right windowpane of the Registry Editor, you will see the values Registered and RegisteredOrganization. Right-click on the value you want to edit and select Modify from the pop-up menu. Enter the correct information

and click OK. Repeat for the other value, if necessary. Click File and select Exit to exit the Registry Editor, and then reboot your computer for the changes to take effect.

I've been using Microsoft Word for years, but I only recently discovered that Word's Status Bar provides more than just status information. You can also use it to access various commands, such as Find and Replace. Are there any other tricks up the Status Bar's sleeve? (Word 2000 or later)

Quite a few, actually. The Status Bar not only displays useful information about your document, such as the page and section you're working in, it also provides quick access to many commands and services.

To use the Status Bar, first make sure it is visible. Click the Tools menu and select Options, and then click the View tab. In the Show area of the Options window, put a check mark next to Status Bar and click OK.

To access the Find, Replace, and Go To dialog box from the Status Bar, double-click any location information, such as the page number or column number.

To check spelling and grammar, double-click the small icon that looks like a book page.

To start recording a macro, double-click REC in the Status Bar. To stop recording the macro, double-click REC again.

To turn Overtyping mode on or off, double-click OVR. Overtyping mode allows you to type new characters over existing ones.

To turn the Track Changes function on or off, double-click TRK. The Track Changes function keeps track of any changes made to a document, as well as the individuals who made the changes.

To turn the Extend Selection function on or off, double-click EXT. The Extend Selection function allows you to extend your current selection from the current insertion point (or the text that's already selected) to the next location you click in the document.

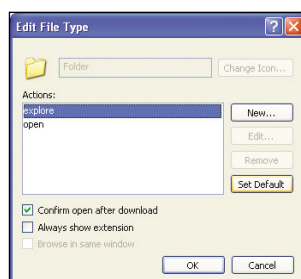
My company has an old Web site stored at a Web hosting service, but no one here knows how to access the files. Is there anything I can use to download the files and save them to use with Microsoft Word? (Word 2002 or later)

If you are using Internet Explorer 6 or later and Microsoft Office XP or later, you have everything you need to download the Web pages and start editing them in Word.

Start by using IE to go to the Web site. When the first page displays in IE, locate the Edit button on the Standard toolbar. With Office installed, the Edit button should have a small down arrow next to it. Click the down arrow and select the Office application you want to use to edit and store the files. In this case, click the down arrow and select Edit with Microsoft Word. IE will download the page, and Word will open the file for you. The file may open in a Read Only state, so you may need to perform a Save As and give the file a new name before you can make any edits. Repeat this process for each page.

You should only use this technique for Web sites and pages that you have permission to use. Some Web site developers lock the editing function of IE to prevent you from editing their sites in Office or other applications.

I like to use Windows Explorer to open and navigate through my hard drives, folders, and files. I want to open My Computer and have Windows Explorer display, rather than the default Desktop windows. Can I do this? (Win98/Me/2000/XP)



You can set My Computer and other Desktop folders to open in Windows Explorer view, rather than as standard Desktop folders.

There are two easy ways to accomplish what you want. The first method is temporary, as well as easy, allowing you to select the way you want to open My Computer on the fly. Right-click My Computer and select Explore from the pop-up menu. The My Computer window will display in Windows Explorer format. If you want to view standard Desktop windows, you can open My Computer the usual way.

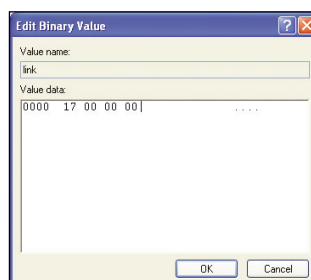
The second method is more permanent, although you can easily revert back to the old method if you change your mind. This method makes Windows Explorer the default view for all Desktop folders, including My Computer. Open any Desktop folder. Click the View menu and select Folder Options (Win98); or click the Tools menu and select Folder Options (WinMe/2000/XP).

Select the File Types tab. Select the Folder entry (Win98), the N/A Folder entry (WinMe/2000), or the (NONE) Folder entry (WinXP). Click the Edit button (Win98), or the Advanced button (WinMe/2000/XP). An Edit File Type dialog box will open. There should be two entries in the Actions section: Explore and Open. Click Explore, the Set Default button, and then OK.

In the future, when you open My Computer, or any folder on the Desktop, the information it contains will display in Windows Explorer.

If you want to change back to the default view, repeat the above steps and select open instead of explore.

I love to use shortcuts to quickly access files and folders, but I don't like the default "Shortcut to" tag that's added to the beginning of every shortcut's name. Manually deleting the tag takes too much time. Is there a way to prevent the tag from being added in the first place? (Win98/Me/2000/XP)



Use the Windows Registry Editor to change the Link value to 00 00 00 00, if you want to eliminate the words "Shortcut to" from being added to the beginning of every shortcut.

There is a technique for dispensing with the tag altogether. When you make the changes necessary to eliminate this extra text, you can choose to banish it just for you, or for everyone who uses your computer.

First, open the Windows Registry Editor. Click Start, and select Run. In the Run dialog box, type **regedit** and then click OK or press ENTER.

Next, select a Registry key. The key you should select depends on whether you want to make the change for all users, or just for yourself.

To make the change just for you, select the following Registry key:

HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\WINDOWS\CURRENT VERSION\EXPLORER

To make the change for all users, select the following Registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\WINDOWS\CURRENT VERSION\EXPLORER

Look in the right windowpane of the Registry Editor for a value called Link. If the Link value is not present, you will need to create it. Click the Edit menu and then select New and Binary Value. A new binary value will appear, with its name highlighted. Type **Link** and press ENTER.

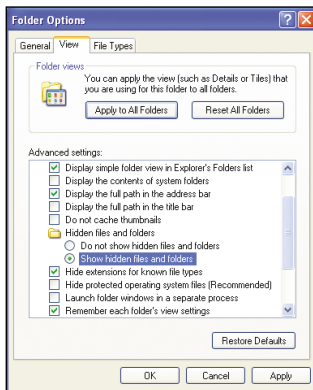
The Link value contains data that you must change if you want to eliminate the Shortcut to tag. Right-click the Link value, and select Modify from the pop-up menu. If you created the Link value, type the number **0** eight times. Do not type any spaces; they will be added automatically. This will yield a binary data value of 00 00 00 00.

If the Link value was already present, the default data is usually 17 00 00 00. (The first two numbers may be something other than 17.) Change the first two numbers to 00 by dragging your mouse across them to select them and then typing **00**.

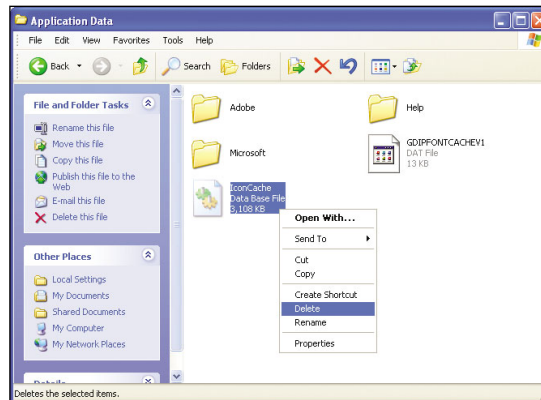
Click OK to save your changes. To exit the Registry Editor, click the Registry menu and select Exit (Win98/Me/2000), or click the File menu and select Exit (WinXP). You will need to restart your computer for the changes to take effect in Win98/Me/2000.

The next time you create a shortcut, the Shortcut to tag will no longer appear at the beginning of the shortcut's name.

Opening my Start menu causes the display to lag. It gets even worse when I access the All Programs section of the Start menu. The rest of my system seems fine. How can I get my Start menu out of first gear? (Windows XP)



Before you can delete the Windows XP IconCache file, you will need to set folder options to show hidden files and folders.



Once you make the IconCache file visible, you can delete it. Windows XP will create a new IconCache file the next time you reboot your computer.

More than likely, the problem stems from the time it takes the icons that represent entries in the Start menu to load.

WinXP uses a special icon cache that should make the Start menu's icon load time reasonably fast. But over time, the icon cache can become excessively large and polluted with icons for applications you no longer use. The icon cache can also become corrupt as a result of system freezes or power outages.

Fixing the icon cache is easy: Just delete it. WinXP will create a new icon cache when you reboot your computer. As an added bonus, WinXP will only populate the cache with icons it currently needs; it won't mess things up by including icons for applications you uninstalled ages ago.

To delete the WinXP icon cache you must first ensure that you have folder options configured to show hidden files and folders. Click Start and select My Computer. In the My Computer window click Tools and select Folder options. Select the View tab. Under the View

tab you will see a scrolling list of Advanced Settings. Locate the Hidden files and folders entry, click the radio button to select the option to Show Hidden Files And Folders, and click OK.

Back in the My Computer window, double-click your C: drive icon to open it, and locate the following folder: C:\DOCUMENTS AND SETTINGS\USERNAME\LOCAL SETTINGS\APPLICATION DATA. In the Application Data folder, right-click on the IconCache file. From the pop-up menu, select Delete and click Yes. Reboot your computer and WinXP will create a new icon cache file.

ScanDisk runs almost every time I boot up my system, even though I know I shut my system down correctly the last time I used it. Is there a way to prevent ScanDisk from running at startup? (Win98/Me)

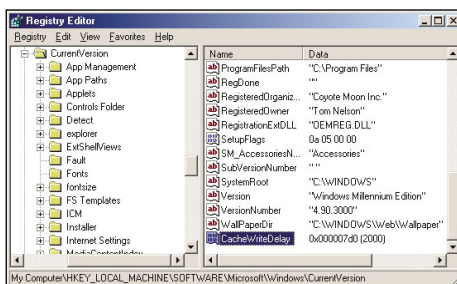
What you describe sounds more like an issue with the shutdown sequence than with ScanDisk running for no apparent reason. Many hard drives include a memory cache located on the drive itself. This cache helps deliver faster drive performance by allowing your computer to send data to the cache rather than wait for the drive to write the data to its platter. The same performance enhancement occurs when your system reads the drive. If the necessary data is already stored in the drive's memory cache, your system won't need to wait to physically read the data from the drive's platter.

The problem kicks in when you turn off your computer. As your system shuts down, it may not wait for the data in the hard drive's cache to be successfully written to the drive's platter. As a result, some data may not be written or may become corrupt. In either case, the next time you boot your computer, ScanDisk checks for possible hard drive corruption.

To correct this problem, you will need to add an entry to the Windows Registry to instruct the OS to wait a slight amount of time before completing the shutdown process.

Click Start and select Run. In the Run dialog box, type **regedit** and click OK or press ENTER. Locate the following Registry key: HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION. Click the Edit menu and select New and then DWORD Value. A new DWORD value will appear, with its default name highlighted and ready for you to change. Type **CacheWriteDelay** and press ENTER. Right-click the new CacheWriteDelay value and select Modify from the pop-up menu. In the Edit DWORD Value dialog box, select Decimal as the Base to use and type **2000** in the Value data field. Click OK to save your changes and then exit the Registry.

The change won't take effect until after the next restart, so you may have to endure one more round of ScanDisk. But after that, boot times should be a little faster.



Adding the CacheWriteDelay DWORD to the Windows Registry can help prevent corruption of data when you shut down your computer.

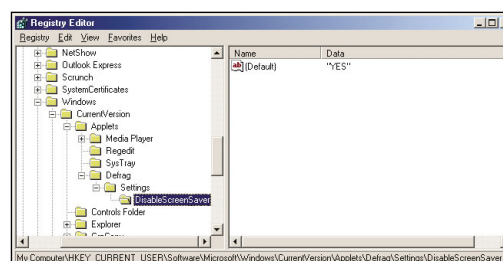
When I defragment my hard drive, I occasionally run into a problem where the screen saver starts and either prevents the defrag from completing or really slows it down. I usually keep the screen saver turned off, but this is a shared computer and sometimes I forget to check the screen saver before running defrag. Is there a way to turn the screen saver off permanently for all users? (Win98/Me)

This is a common problem with shared computers. One user turns a feature off, and another surreptitiously turns it back on. In addition to causing slowdowns or other problems, it can also lead to frayed tempers.

There is a better way to achieve your goal than permanently disabling the screen saver, which many individuals like to use. Instead, you can add an entry to the Windows Registry that will automatically disable the screen saver whenever you use the disk defragmenter.

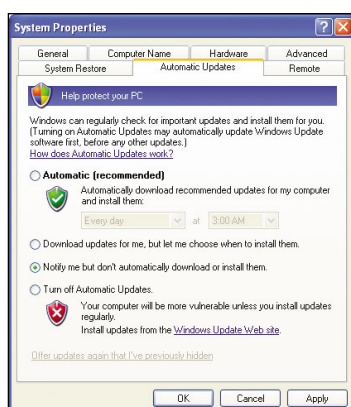
Click Start and select Run. In the Run dialog box, type **regedit** and click OK or press ENTER. Locate the following Registry key: HKEY_CURRENT_USER\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\APPLETS. Make sure the Applets key is highlighted. Click the Edit menu, and select New and then Key. A new key will appear with its default name highlighted and ready for you to change. Type Defrag and press ENTER. With the Defrag key selected, click Edit and then select New and Key. Name the new key Settings. With the new Settings key selected, click Edit and select New and then Key. Name the new key DisableScreenSaver. With the DisableScreenSaver key selected, right-click the Default value in the right windowpane and select Modify from the pop-up menu. In the Edit String dialog box, type YES in the Value data field and click OK. Exit the Registry Editor.

Reboot your computer and the screen saver will no longer plague you when you use the defrag utility.



You can keep the screen saver from kicking in while you're using the Windows Disk Defragmenter by adding an entry to the Windows Registry.

I used the automatic update function to install WinXP SP2. Now that SP2 is installed, is the automatic update feature sapping performance by always running in the background? (WinXP SP2)



The Automatic Update function in Windows XP can be a drain on system resources, especially if it is configured for automatic operations. For a satisfactory compromise between performance and security, select the notification level.

Many individuals turned Automatic Update on, to ensure that they would receive SP2 as soon as it was available. Leaving Automatic Update enabled ensures that you will receive additional updates in a timely manner. It also ensures that your computer will be protected with the latest security patches as soon as they become available. This option provides maximum protection, but it can indeed present a problem if you want optimum performance. When it is enabled, Automatic Update always runs in the background, consuming a small amount of computer resources. If Automatic Update is configured to check for, download, and install new updates automatically, you could end up with a heavy resource drain in the middle of an important activity.

WinXP SP2 users and WinXP updated with BITS (Background Intelligence Transfer Service) users have four Automatic Update levels to choose from. The Automatic level downloads and installs updates as they become available. The other choices are: Download Updates For Me, But Let Me Choose When To Install Them; Notify Me, But Don't Automatically Download Or Install Them; and Turn Off Automatic Updates.

WinXP SP1 users have three options: Notify Me Before Downloading Any Updates, And Notify Me Again Before Installing Them On My Computer; Download The Updates Automatically, And Notify Me When They Are Ready To Be Installed; and Automatically Download The Updates, And Install Them On The Schedule That I Specify.

WinXP users have three options: Download The Updates Automatically And Notify Me When They Are Ready To Be Installed; Notify Me Before Downloading Any Updates, And Notify Me Again Before Installing Them On My Computer; and Turn Off Automatic Updating I Want To Update My Computer Manually.

To select the option that meets your needs, right-click on the My Computer icon, located either on the Desktop or in the Start menu, and select Properties from the pop-up menu. In the System Properties dialog box select the Automatic Updates tab. Make your selection and click OK.

You will get the best performance by turning Automatic Updates off, but we don't recommend this option because it leaves you vulnerable to new security issues that may arise. (And they tend to arise on a frighteningly regular basis.) Instead, select Notify Me to boost performance without putting your system at risk. This option will keep you on top of any new security vulnerabilities, but it won't perform a download and installation when you least expect it.

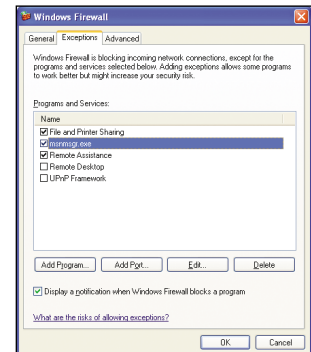
How can I disable the caching of domain passwords? (Windows 95/98/Me)

If you want users to re-enter their passwords each time they access domain resources, you can disable the caching of domain passwords. Because completing this tweak does require you to make a change to the Registry, you should first back up your computer and use caution when performing the following steps:

1. Open the Start menu and click Run.
2. Type **regedit** in the Open field and click OK.
3. Expand the following Registry key: HKEY_LOCAL_MACHINE\NETWORK\LOGON
4. Create a new DWORD value called NoDomainPwdCaching.
5. Set the value to 0 for disabled.
6. Close the Registry Editor.

I am running Windows XP Service Pack 2. Can I use MSN Messenger 6.2 through my firewall?

The Windows Firewall contains a list of exceptions, which contains programs and services that the firewall will not block. You can add a program, such as MSN Messenger, to this list of exceptions through the Windows Firewall applet. Open the Start menu, select Control Panel, and double-click Windows Firewall. In the resulting dialog box, select the Exceptions tab. Click the Add Program button and then click the Browse button. Locate the following directory: PROGRAM FILES\MSN MESSENGER. Select Msnmsgr.exe and click Open. Click OK. The Msnmsgr.exe should now appear on the list of exceptions. You can perform the same steps above to add other programs and services to the firewall's exception list.

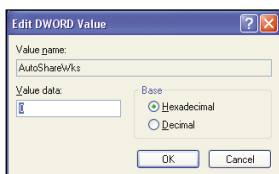


You can edit the list of exceptions to allow services and programs to function through the Windows Firewall.

How can I easily manage my security settings in WinXP SP2?

Once you install SP2, you will notice the addition of the Security Center applet to your Control Panel. You can use the Security Center to monitor your Windows security settings. The three essential security settings you should implement to protect your computer are a firewall, Automatic Updates, and Virus Protection. The Windows Security Center will give the status of these three security essentials. If one of these components is missing, Windows Security Center will give you recommendations that you can follow to increase security. You can also manage the security settings for Internet Options, Automatic Updates, and the Windows Firewall through the Security Center. In order to access this feature, simply open the Start menu, select Control Panel, and double-click Security Center.

How can I prevent my computer from sharing my local hard drives when networking is installed? (Windows NT/2000/XP)



By creating a new DWORD value, you can disable administrative shares.

By default, when you configure your computer for networking, hidden shares are created for your local hard drives. You can access the hidden shares by appending a \$ (dollar sign) to the share name. For example, you can access the root of your hard drive (most often the C: drive on most systems) by typing \\computername\c\$.

In order to disable the automatic sharing of your local drives, you must edit the Windows Registry. Before you proceed with the steps below, be sure to perform a backup of your computer.

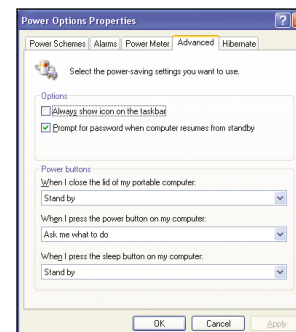
1. Open the Start menu and click Run.
2. Type **regedit** in the Open field and click OK.
3. Navigate to the following Registry key: HKEY_LOCAL_MACHINE\SYSTEM\CURRENTCONTROLSET\SERVICES\LANMANSERVER\PARAMETERS.
4. Open the Edit menu, select New, and click DWORD Value.
5. Name the new value AutoShareWks and press ENTER.
6. Double-click the AutoShareWks value and click Modify. Verify that the Value Data field is set to 0 and click OK.
7. Close the Registry Editor and restart your computer.

How can I configure my computer to prompt users for a password when my computer comes out of Standby Mode? (Windows 2000/XP/Server 2003)

If you want to reduce the amount of power your computer consumes when you are not using it, you can configure it to enter Standby Mode after a specific period of inactivity. Bringing your computer out of Standby Mode is as simple as moving your mouse.

For increased security you can configure your computer to prompt you for your password when it comes out of Standby Mode. Requesting a password will discourage other people who access your computer from bringing the computer out of Standby and using it under your user account.

To configure your system to ask for a password, open the Start menu, select settings, and click Control Panel. (In WinXP you can access the Control Panel from the Start menu.) Double-click Power Options and select the Advanced tab in the Power Options Properties dialog box. Select the Prompt For Password when Computer Resumes From Standby checkbox and click OK.



You can use the Power Options applet to prompt you for a password when coming out of Standby Mode.

I only want users in my domain to be able to change their passwords when Windows prompts. How can I accomplish this? (Win2000/Server 2003)

For security purposes, all computer users should change their passwords from time to time in order to reduce the chances of their user accounts being compromised. However, you may only want users to change their passwords when Windows prompts them to. For example, your password policy may require that users change passwords every 30 days, so with the right configurations, you can prevent users from changing their passwords before the 30 days expire using the following steps:

1. Open the Start menu, point to Administrative Tools, and select Active Directory Users And Computers.
2. Right-click your domain and select Properties.
3. Click the Group Policy tab.
4. Select the appropriate policy and click Edit.
5. Expand User Configuration, select Administrative Templates, System, and then click Logon/Logoff.
6. Double-click Change Password.
7. Under the Policy tab, click Enabled.
8. Click OK.

Users in the domain will now only be able to change their passwords when their system prompts them to do so.

How can I enable and disable the Windows Firewall in WinXP SP2?



Once you install WinXP SP2, the Windows Firewall is enabled by default. The interface for managing this component is also slightly different from the original version of WinXP. We don't recommend that you disable the firewall, but if you are using a third-party firewall solution, you may need to do just that. To disable Windows Firewall:

1. Open the Start menu and click Control Panel.
2. Double-click Windows Firewall.
3. In the Windows Firewall dialog box, under the General tab, select the Off (Not Recommended) radio button.
4. Click OK.

Once you disable the firewall, Windows displays a balloon in the corner of your Desktop indicating that your computer might be at risk because no firewall is turned on. To close the balloon, click the X in the top corner. If you later decide you want to enable Windows Firewall, follow the steps above, only click the On (Recommended) radio button.

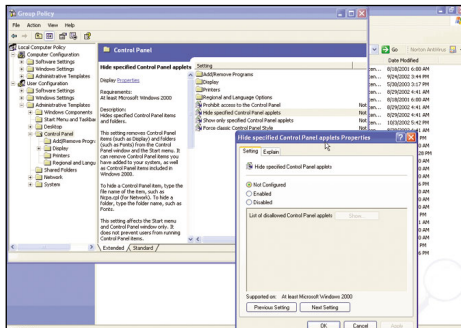
You can enable or disable the firewall using the Windows Firewall applet in the Control Panel.

How do I create a guest account on my notebook so no one can access data under my user profile? (Windows XP)

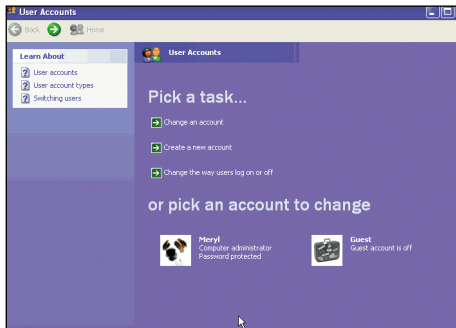
It's a good idea to create a generic guest account so you can allow friends and colleagues to use the computer when needed. Open the Start menu and select Settings and Control Panel, and then click User Accounts. Select Create A New Account from the Pick A Task list. Enter a name for the new account, Guest for example, and click Next. Select Limited and click Create Account.

You can limit a guest user from accessing Control Panel items, as well as hide User Accounts. Make the change in the Group Policy dialog box, which you open by clicking Start, Run, and typing **gpedit.msc**. Select User Configuration, Administrative Templates, and

Control Panel. Double-click Hide Specified Control Panel Applets. Click Enabled, the Show button, and then the Add button. Hide a Control Panel item by entering its file name into the Add Item window. Control Panel file names end with the .CPL extension. For example, Ncpa.cpl is the name for the Network file, and Nusrmgt.cpl is the name for User Accounts. You can also hide folders by entering the folder name, such as Media or Font.



Hide items in the Control Panel window by changing the User Configuration settings.



Create new accounts for guests through the User Accounts window.

Or, if it's easier, you can click Show Only Specified Control Panel Applets and add the items the user can view. Another item to change is the display, which has its own folder under Control Panel. Click an item to view information about it in the left column.

Don't know the names of CPL files? In Windows Explorer, type **%Systemroot%\System32** into the Address field. Click Search, select All Files And Folders, type ***.cpl** into the All Or Part Of The File Name field, and then click Search again.

I've been trying to delete a file from my notebook as I try to keep my hard drive as lean as possible. It's not a system file, yet the computer won't let go. Is there a way around it, or am I stuck?

First, close all applications because the file's associated application could have it loaded in memory. If you've already tried this, it's possible that Windows Explorer is using the file. Here are a couple of things to try. Ensure all of the programs are closed. Open the command prompt by clicking Start, selecting Run, typing **cmd** in the Open field, and pressing ENTER. In the same dialog box, type **taskmgr.exe** the Open field and press ENTER to open Task Manager. Select the Processes tab, highlight Explorer.exe, and then click End Process. Keep Task Manager open.

Switch to the Command Prompt window and find your way to the directory where the undeleteable file is located. Type **del filename** and replace the file name with the full name of the file you wish to delete. Return to Task Manager, click File and New Task, type **explorer.exe**, and then click OK to restart it. Close Task Manager and the Command Prompt windows.

If all else fails, restart your computer to get it to let go of the files, and then try deleting the file.

I have a desktop and a notebook computer and use the same email account on both. I need to be able to read email on both, but retrieving email from the desktop prevents me from seeing it on the notebook. Is there a way to manage this?

Having multiple computers is common, but it's tricky to manage two at the same time. Many people have a computer at home, another at work, and maybe a notebook, too. Select which computer is the most important and should always receive the emails. This is your primary computer. On the other computers, you'll need to change the email settings to "Leave email on the server." To do this in Outlook, click Tools and Email Accounts. Select View Or Change Existing Email Accounts. Click Next, Change, More Settings, and select the Advanced tab. There is a checkbox next to Leave A Copy Of Messages On The Server. If you're on the non-primary computer, check it and click OK.

To do the same thing in Outlook Express, select Tools and Accounts. Pick the Mail tab and click Properties. Select the Advanced tab and, under Delivery, click the checkbox next to Leave A Copy of messages on server.

On the primary computer, ensure that the checkbox is not checked; otherwise, email will pile up on the server, and eventually, you'll run out of space.

I sometimes share my notebook with other family members. However, I have files that I don't want them to see because of proprietary information or other reasons. How can I prevent them from seeing such files on WinXP?

One way is to set up a guest account and sign them onto the notebook through that account, instead of yours. Another way is to lock those top secret folders. Before proceeding, it works only with NTFS drives. To do this, open My Computer and double-click on the drive where Windows is installed (most likely C:). Ensure that the contents of the drive are visible by clicking Tools and Folder Options and then selecting the View tab. Under the Hidden Files And Folders subfolder (located in Files And Folders), select Show Hidden Files And Folders.

Select the Document And Settings folder and then your user folder (usually in your name). Right-click a folder under your user folder, and select Sharing and Security. Click the box next to Make This Folder Private. Not only is the folder private, its subfolders are private, as well. This only works with folders included in your profile, including My Documents (which includes My Pictures and My Music), Desktop, Start Menu, Favorites, and Cookies. These folders only appear under your user profile.

The weather where I live is unpredictable even after I leave my house for work. How can I load the weather report on my Pocket PC?

Mother Nature is fickle. She is constantly challenging the weather reports you get from your local news station or newspaper. You can carry the weather report with you on your Pocket PC by downloading Weather To Go, a free program. You can select two cities by pressing the yellow button that appears on the Today screen. The application provides a five-day weather forecast, offers a choice of degrees in Fahrenheit or Celsius, and includes the sunrise and sunset times. Download it from Tonaya at www.tonaya.com.



The Today screen displays the weather.

I heard you can sync Outlook data with Yahoo! Mail, which enables you to view your calendar and contacts from any computer. How do you do it?

It's a simple and free process to sync Outlook information with Yahoo! Mail so that you have your information anywhere you go without your notebook or mobile device. Yahoo! imports your calendar, address book, tasks, and notepad. It will also accept data from PalmOS, ACT!, and Lotus Organizer. If you're switching from a PalmOS device (even using Palm Desktop instead of Outlook) to a Pocket PC, this is one tool for transferring data.

To get Intellisync for Yahoo! Mail, go into your Yahoo! Mail account and select the Addresses tab. Click the Sync link near the upper right-hand corner. Click Install Now and then click I Accept, after reading the EULA (End User License Agreement), to download the program. Open the setup program and follow the setup wizard's instructions to complete installation.



Use Intellisync for Yahoo! Mail to sync Outlook with Yahoo! Mail's calendar and addresses.

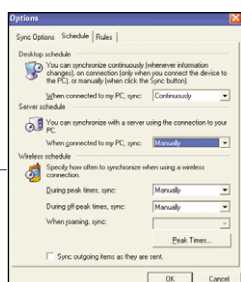
Before syncing, back up your data based on your device's instructions. The application may not import PalmOS notes, but you can work around this by using the Export menu in Memos. After exporting the data, open Outlook and select Notes. Use the Import and Export options from the File menu. The Tab Separated Values that use the Export Type work well. Map Custom Fields by matching up From to To fields. Typically, the first one is Notes Body, the

second is Sensitivity, and the third is Categories. Once the data is on the Pocket PC, Yahoo! Mail will sync with it. You can change your Yahoo! preferences to send you an email reminder of events. For further help using Intellisync, view the help file at help.yahoo.com/help/intsync.

Every time I put my Pocket PC into the cradle, ActiveSync synchronizes the data. Can I change the setup so I decide when it should sync?

Change the ActiveSync options to control when your Pocket PC syncs with your computer.

Letting ActiveSync automatically sync with the Pocket PC ensures that your data is safe on the computer, but you may want to change it to a schedule or do it manually in order to avoid syncing every time you turn on the Pocket PC or put it in the cradle. Double-click the ActiveSync icon in the System Tray to open the ActiveSync window. Select Options and pick the Schedule tab. Change the Desktop Schedule drop-down next to When Connected To My PC, sync to Manually. If you sync via server or wireless connection, you can change these settings to a time, such as every hour, or set it to Manually. When you're ready to manually sync, click the Sync button on the ActiveSync window.



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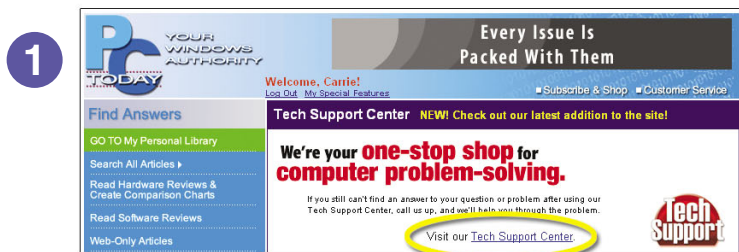
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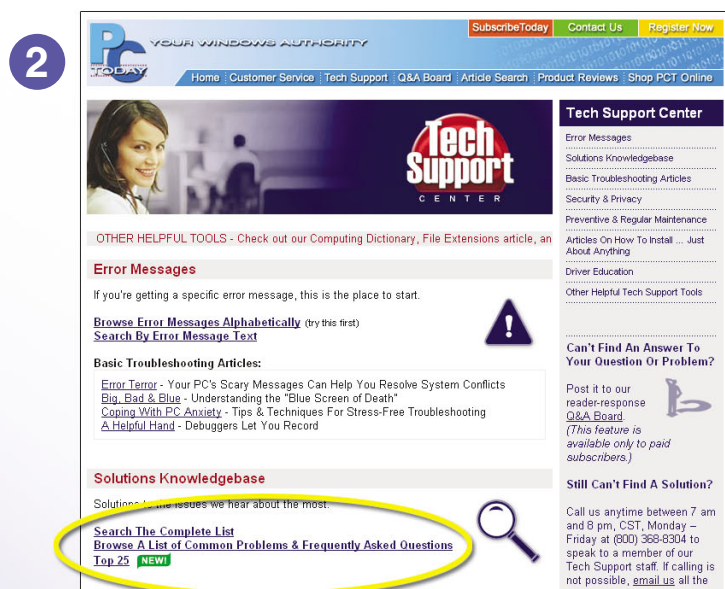
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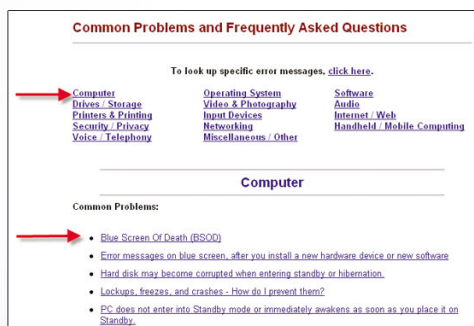
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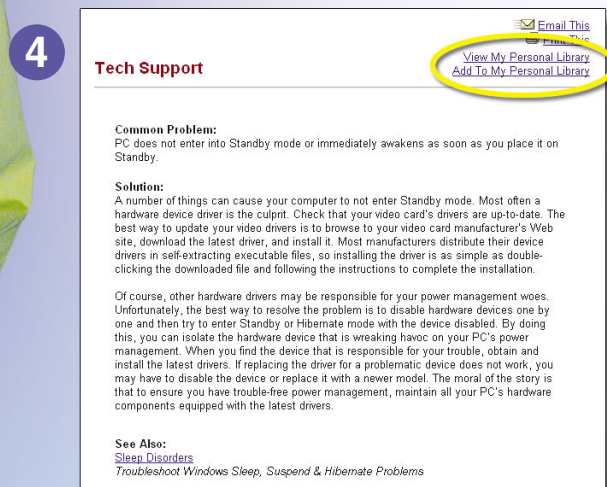
1 Go to www.pctoday.com. Then click the link to the Tech Support Center.

2 Once you are in the PCToday.com Tech Support Center, click the links in the Solutions Knowledgebase area to search or browse through the Common Problems and Frequently Asked Questions.



3 If searching the list, enter the word or phrase to search for and click Search. If browsing the list, you can click the link at the top to the component you are looking for or scroll down the page to view the listings for each category.

4 Once you find what you're looking for, click the link for the appropriate problem, and the resulting page will have the translation and solution to your problem! Subscribers—make sure you are logged in on the home page before accessing the Tech Support Center. Logging in will allow you to save these helpful listings using the Add To My Personal Library link in the upper right of each common problem or frequently asked question.



The Hardware Scene

A Look At New & Upcoming Arrivals

This month's edition of the hardware scene runs the gamut of products, from trendy and fashionable to traditional and basic. We have several new portable music players, including one that features an integrated camera. For home entertainment, a number of our new products integrate your computer with your television and stereo system. We also look at products designed for mobility and for the standard desktop.

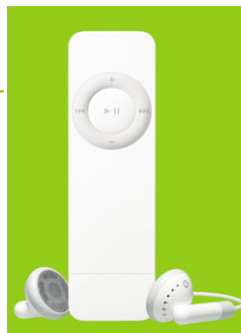
Apple iPod shuffle

Apple's newest portable music player, the iPod shuffle, is the smallest and least-expensive iPod yet. By incorporating USB (Universal Serial Bus) flash storage, Apple created a portable music player that measures only 3.3 x 0.98 x 0.33 inches (HxWxD) and weighs less than an ounce. And, despite its diminutive dimensions, the iPod shuffle comes in capacities of 512MB and 1GB.

In addition to using flash-based storage rather than a hard drive, Apple shrank the iPod shuffle by omitting a display. Instead, a slider lets you choose between playing songs in order or in shuffle mode. A circular navigation pad

offers controls such as Play, Pause, Skip, and Repeat. Other features include a battery indicator light, a headphone jack, earbud headphones, and a USB connector with cap.

The iPod shuffle attaches to your computer via a USB connector. For downloading audio files to the player, Apple includes iTunes software. The device plays MP3, AAC (Advanced Audio Coding), Audible, and WAV audio files. The 512MB player holds a maximum of 120 songs and the 1GB player holds a maximum of 240 songs, assuming an



iPod shuffle

\$99 (512MB); \$149 (1GB)

Apple

(800) 692-7753

(408) 996-1010

www.apple.com

Image courtesy of Apple.

average length of four minutes at 128Kbps (kilobits per second) encoding.

The device ships with headphones, a lanyard, a USB cap, software on CD, and documentation. Optional accessories, which cost about \$29 each, include the USB power adapter, a back-up battery pack, a USB dock, an armband, and a sport case. Apple offers a one-year warranty and 90 days of single-incident telephone support. ●

Canon PIXMA iP90



PIXMA iP90

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designed to make the printer easy to use when you travel.

The iP90 prints a maximum of 16ppm for black and 12ppm for color documents. It can produce borderless photo prints in three sizes: 4 x 6, 5 x 7, and 8.5 x 11 inches. It also works with standard paper sizes and offers a maximum print resolution of 600 x 600 dpi for black prints and 4,800 x 1,200 dpi for color prints.

Canon incorporates several ink-saving options for when you don't have access to replacement cartridges. For example, the

printer includes a Save setting that yields as much as 66% more ink than the normal mode. If the iP90 runs out of black ink, select the Use Composite Black mode setting and the iP90 creates substitute black ink by mixing the color inks together.

For connectivity, the iP90 comes with a USB (Universal Serial Bus) port and a built-in IrDA (Infrared Data Association) interface. The printer is compatible with PictBridge-capable digital cameras and camcorders. Canon also offers a Bluetooth Unit for wireless connectivity with Bluetooth-enabled devices. The iP90 is USB-compatible with Windows 98/Me/2000/XP and Mac OS X v10.2.1 to 10.3.x systems.

Canon ships the iP90 with a color ink tank, a black ink tank, an AC adapter, a power cord, software on CD, and documentation. The iP90 comes with a one-year warranty and toll-free technical support. ●

If you want to print on the go, check out Canon's new PIXMA iP90 mobile printer. At 2 x 12.2 x 6.9 inches (HxWxD) and 4 pounds, the printer is portable enough to use in a car or hotel room. Plus, Canon offers a number of accessory kits

Creative TravelSound Notebook 500

With most built-in notebook speakers lacking good sound quality, Creative's new TravelSound Notebook 500 speaker system adds gusto to your notebook's audio capabilities without taking up space. Designed to clip to the top of your notebook's display, the system features a digital amplifier and titanium microdrivers for better audio quality and durability.

The TravelSound Notebook 500 is an all-in-one system, with the speakers housed in a single unit that measures 1.85 x 8 x 1.3 inches (HxWxD) and weighs 10 ounces. The built-in SnapAttach spring clip works with any notebook display up to 1/2 inch thick. You can also fold out a portion of the unit's back casing and set the device on a desk or tabletop.



TravelSound Notebook 500

\$99.99 • Creative
(800) 998-5227
(408) 546-6737
us.creative.com

For power, the TravelSound Notebook 500 offers three options. The system includes a USB (Universal Serial Bus) port

and cable that receives power from a USB port on your notebook. For power from a universal power adapter (not included), the speaker system comes with a DC power jack. If you want power without cords or cables, the device comes with four AAA batteries, which provide as many as 30 hours of audio playback.

The back of the TravelSound Notebook 500 offers an audio line-in connection, a USB connection, a DC power connection, and a subwoofer line-out connection. Additional features include external controls for volume and power on the top of the unit, and an LED (light-emitting diode) power indicator.

Technical specifications include a power rating of 2 watts per channel for DC power and 0.8 watt per channel for USB power. The signal-to-noise ratio is 80dB and the overall frequency response is 150Hz to 20KHz. In addition to notebooks, the speaker system works with portable DVD players and portable audio players. ●

eMachines T3624

The lowest-priced desktop in the eMachines product line, the new T3624 offers consumers basic computing features at a value price. This model is designed for routine tasks such as email, word processing, and Internet access. Although it doesn't offer many multimedia bells and whistles, the T3624 does come with a 48X CD-RW drive and ample USB (Universal Serial Bus) 2.0 ports.

The T3624 is powered by Windows XP Home Edition and a 2.66GHz Intel Celeron D 330 processor. It has 256MB of memory (expandable to 2GB), a 60GB hard drive, and an Intel Extreme Graphics 3D card with 64MB of shared video memory. For network and Internet connectivity, the T3624 comes with a 10/100 Ethernet port and a 56Kbps (kilobits per second) fax modem.

For ports and connections, the desktop features two front USB 2.0 ports, four back USB 2.0 ports, a serial port, a parallel port, two PS/2 connections, an

external VGA (video graphics array) connector, and five audio connections (two in front, three in back). The silver and black tower measures 14.25 x 7.25 x 16 inches (HxWxD). Although the T3624 and other eMachines systems are not customizable, the company offers additional models that build on the T3624 system's feature set.

eMachines ships the T3624 with a variety of preinstalled applications. These include Microsoft Works 8.0, Microsoft Money 2004, Encarta Online, Adobe Acrobat Reader, Microsoft Media Player 9, and RealNetworks RealPlayer. For security, you also receive a 90-day trial of Norton AntiVirus 2005 and a 30-day trial of McAfee AntiSpyware.

The eMachines T3624 system does not include a display, but you can choose from several that match the T3624, starting at \$169.99. eMachines does include a standard keyboard, a two-button wheel mouse, and stereo speakers. The



T3624

\$409.99 • eMachines
(801) 401-1419
www.emachines.com

eMachines brand is backed by a one-year warranty. Gateway, which acquired eMachines in 2004, provides service and support. ●

HP Media Center m1270n Photosmart PC



**Media Center m1270n
Photosmart PC**
\$1,179 • HP
(800) 752-0900
www.hp.com

The new HP Media Center m1270n Photosmart PC is a complete system for multimedia enthusiasts. Its design complements digital audio, video, and photography, and you can use its PVR (personal video recorder) features to watch, record, and browse television.

A 3GHz Intel Pentium 4 Processor 530J with HT (Hyper-Threading) technology powers the m1270n. It runs Windows XP

Media Center Edition 2005 and includes a 250GB SATA (Serial Advanced Technology Attachment) hard drive, 1GB of memory (expandable to 4GB), an ATI Radeon X300 SE PCI Express graphics card with 128MB of video memory and TV-out port, and Intel High Definition Audio with 7.1 surround sound.

Two optical drives are included: a 48X CD-ROM drive and a double-layer 16X

DVD±R/RW drive with LightScribe technology. LightScribe is a DVD/CD-labeling feature (which HP designed) that laser-etches images and text directly on special media. HP sells the monitor and speakers separately.

The m1270n comes with a built-in 9-in-1 media card reader. For ports and connections, HP supplies the computer with two front and four back USB (Universal Serial Bus) 2.0 ports, one front and one back FireWire port, and a microphone/headphone jack. The system also includes inputs for composite video, S-Video (Super-Video), and audio in addition to a 10/100 Ethernet port and a 56Kbps (kilobits per second) modem.

The m1270n ships with an HP optical mouse, a media center keyboard, remote control, software on CD, and documentation. HP's standard warranty is one year for hardware and 90 days for software, with toll-free 24/7 phone support. Extended service plans are available. ●

LG Electronics Super-Multi Triple Format DVD Drives

LG Electronics' newest DVD burner, the Super-Multi Triple Format DVD Drive, offers support for double layer DVD+R media, recording as much as 8.5GB of information on a single disc. The burner also handles all types of DVD formats, including the lesser-known DVD-RAM format. LG sells the burner in an internal model (GSA-4160B) and an external model (GSA-5160D).

Maximum write speeds for both models are 2.4X for double layer DVD+R, 4X for DVD±RW, 5X for DVD-RAM, 8X for DVD-R, 16X for DVD+R, 24X for CD-RW, and 40X for CD-R. For maximum read speeds, the drives perform at 5X for DVD-RAM, 10X for DVD±R/RW, 16X for DVD-ROM, and 40X for CD-ROM/R/RW.

Additional technical specifications for the Super-Multi Triple Format Drives include a data transfer rate of 16.6MBps

(megabytes per second) for Multi-DMA Mode 2 and a data transfer rate of 66MBps for Ultra-DMA Mode. The typical access times are 145ms for DVD-ROM, 165ms for DVD-RAM, and 125ms for CD-ROM. The buffer size is 2MB, and LG Electronics includes buffer underrun error protection. The drives support a variety of media types including high-speed discs, photo CDs, and VCDs (Video CDs).

LG Electronics bundles several applications with the new burners. These include Ahead Nero, Ahead InCD, Cyberlink Power-Producer Gold2, and Cyberlink Power-DVD. System requirements include Windows 98/Me/2000/XP. The internal model requires an IDE/ATAPI (Integrated Drive Electronics/Advanced Technology Attachment Packet Interface) connector. It comes with an ivory or black front bezel, measures 1.63 x 5.75 x 7.26 inches



Super-Multi Triple Format DVD Drives
\$95 (GSA-4160B); \$125 (GSA-5160D)
LG Electronics
(800) 243-0000
www.lgusa.com

(HxWxD), and weighs 2 pounds. The external model offers a USB (Universal Serial Bus) 2.0 connector and two FireWire ports. It comes in a white case only, with measurements of 2.1 x 6.4 x 9.6 inches, and weighs 3.4 pounds.

With the internal model, LG Electronics includes a two-drive IDE cable, an audio cable, and mounting screws. The external model ships with a USB 2.0 cable, a 6-4 FireWire cable, a 6-6 FireWire cable, and a power adapter. LG Electronics provides a one-year warranty and 24/7 toll-free telephone support. ●

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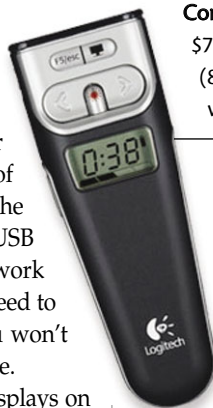
Control

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Logitech Cordless 2.4GHz Presenter

A handy remote for controlling Microsoft PowerPoint presentations, the new Logitech Cordless 2.4GHz Presenter features a built-in timer and has an operating distance of as much as 50 feet. In addition, the remote and its corresponding USB (Universal Serial Bus) receiver work right out of the box. You don't need to synchronize the device, and you won't need to install additional software.

The remote's built-in timer displays on an LCD (liquid-crystal display) that measures 1 x 0.5 inches. A built-in timer notifies you of the time remaining by vibrating when the countdown reaches five minutes, and again when it reaches two minutes. Designed to fit comfortably



Cordless 2.4GHz Presenter

\$79.95 • Logitech
(800) 231-7717; (510) 795-8500
www.logitech.com

in your hand, the device measures approximately 4.5 x 1.5 x 0.75 inches (HxWxD).

To control the movement of slides during your presentation, the Cordless 2.4GHz Presenter features large buttons for navigating forward and backward. Between these buttons is a raised control that activates the remote's built-in laser pointer. In addition, two smaller buttons add the ability to launch or exit slideshow mode and turn the

display to black. For audio and multimedia content, the remote includes volume controls on the side.

The device's wireless communications use 2.4GHz RF (radio frequency) technology. The corresponding receiver, which Logitech pairs with the remote during manufacturing, attaches to your computer's USB port. When you are not using the device, you can place the receiver in the remote's built-in storage slot.

For power, the Cordless 2.4GHz Presenter runs on two AAA batteries that operate the device for as long as six months. The LCD includes a battery status indicator, and you can switch the remote off to conserve power when it's not in use. System requirements include Windows 98 Second Edition/Me/2000/XP, a USB port, and Microsoft PowerPoint software.

The Cordless 2.4GHz Presenter ships with a wireless receiver, two AAA batteries, a carrying case, and documentation. Logitech provides a three-year warranty for the device. ●

NETGEAR Wireless Digital Media Player (MP115)

NETGEAR's new Wireless Digital Media Player (MP115) transports multimedia content on your home computer network to your home entertainment system. The device connects to your network, automatically detects the multimedia files stored on all networked computers, and lets you access them through your television or stereo system.

The MP115 attaches to your television using standard audio/video jacks and cables. To attach to your network, the device offers wireless 802.11b and 802.11g connectivity. If your network is not wireless, you can connect the MP115 to your network router with an Ethernet cable. For wireless security, the device includes hardware-based WEP (Wired Equivalent Privacy) 64-bit and 128-bit encryption.

To manage your multimedia files, the MP115 comes with NETGEAR Media



Wireless Digital Media Player (MP115)

\$220 • NETGEAR
(888) 638-4327
(408) 907-8000
www.netgear.com

Server software, which you install on one of your networked computers. After you connect the MP115, the software automatically locates all music, photo, and video files stored on the network. With the included remote and television-based interface, you can navigate

and select the multimedia files to play or display. Minimum system requirements for the software include Windows 2000/XP, a 500MHz Pentium processor, 128MB of memory, and 20MB of hard drive space.

Compatible with numerous file formats, the MP115 works with MPEG (Moving Picture Experts Group)-1, MPEG-2, MPEG-4, JPEG (Joint Photographic Experts Group), GIF (Graphics Interchange Format), TIFF (Tagged Image File Format), BMP (bit map), MP3, WMA (Windows Media Audio) 8 and WMA 9, and WAV files. It also supports M3U and PLS playlist files and Internet radio. In addition, NETGEAR includes free access to vTuner.com Internet Radio and 30-day trials for Radio@AOL and Rhapsody Internet audio services.

NETGEAR ships the MP115 with the remote control, two AA batteries for the remote, a power cable, an Ethernet cable, a composite video cable, a composite audio cable, software on CD, and documentation. The player has a one-year warranty, and the company offers 24/7 technical support for the device. ●

Olympus m:robe 500

Taking electronic gadgetry to the next level, the new Olympus m:robe 500 combines a 1.22-megapixel digital camera with a portable digital music player. The device lets you display digital photos on a large, 3.7-inch VGA (Video Graphics Array) touchscreen. Olympus also includes four remix templates that you can use to set your photos to display with music and cool transitions.

The m:robe 500 features a 20GB hard drive for storage. It supports numerous audio file formats including WMA (Windows Media Audio), MPEG (Moving Picture Experts Group)-1, MPEG-2, and MP3. When you snap photos with the built-in camera, the m:robe 500 stores the images in the JPEG (Joint Photographic Experts Group) format.

Audio features include a headphone jack, 16 preset equalizer settings, a search



m:robe 500

\$499.99 • Olympus
(800) 645-8160
www.olympusamerica.com

feature, and multiple playback modes. An included remote lets you control volume, select listening modes, and play music.

The digital camera offers two resolution settings, 1,280 x 960 or 640 x 480, and it is compatible with PictBridge photo printers. You can arrange photos into

albums and adjust picture-taking settings. A rechargeable battery provides about eight hours of continuous playback for WMA files and 12 hours for MP3 files. The m:robe 500 measures 3 x 4.375 x 0.85 inches (HxWxD) and weighs approximately 7.5 ounces.

To transfer, store, and organize music and photo files using your PC and the m:robe 500, Olympus includes the m:trip program. To use the m:trip software, you need a computer with a minimum of Windows 2000/XP, a Pentium III processor, 128MB of memory, 200MB of hard drive space, a USB (Universal Serial Bus) port, a CD-ROM drive, Internet Explorer 6, and Windows Media Player 9.

The m:robe 500 comes with headphones, a cradle, a USB cable, a remote control, an AC adapter, a power cord, an audio/video cable, a carrying pouch, software on CD, and documentation. Olympus provides a one-year warranty and online and toll-free telephone support. ●

Sony H-Series PC/TV Display



H-Series PC/TV Display

\$600 (MFM-HT75W); \$800 (MFM-HT95)
Sony Electronics
(877) 865-7669
www.sonystyle.com

By combining a PC display with your home entertainment system, Sony's new H-Series PC/TV Displays let you share your computer's flat-panel LCD (liquid-crystal display) with

your television. The displays connect to your PC and include digital inputs for other devices including cable and satellite TV boxes, DVD players, VCRs, and HDTVs (high-definition televisions). And with support for picture-in-picture, you can watch videos or television when you use your computer.

The new H-series debuts in two sizes: the 17-inch MFM-HT75W and the 19-inch MFM-HT95. Both models come with digital and analog PC input connectors, a component RCA jack, an S-Video (Super-Video) connector, a composite jack, and HDTV support. In addition, the displays feature built-in speakers with SRS WOW 3D audio technology. The displays come with two 3-watt side speakers, a 5-watt subwoofer, and a side headphone jack.

Technical specifications for both models include a native resolution of 1,280 x 768, a luminance rating of 450 nits, and horizontal and vertical viewing

angles of 170 degrees. The MFM-HT75W has a maximum contrast ratio of 800:1 and a 16ms response time. The MFM-HT95 offers a contrast ratio of 1,000:1 and a response time of 12ms. Both models feature Sony's ErgoBright technology for managing multiple display settings and XBRITE technology for filtering and backlighting.

The displays are compatible with Mac and Windows computers. The 19-inch MFM-HT95 weighs 17.2 pounds and measures 15.8 x 17.2 x 7.3 inches (HxWxD). The 17-inch MFM-HT75W weighs 13.9 pounds and measures 12.7 x 17.7 x 6.9 inches. The displays feature a silver frame and front face with a black back cabinet.

The MFM-HT75W and the MFM-HT95 ship with an AC power cord, an HD15 PC video signal cable, a DVI-D PC video signal cable, a PC audio cable, a 75ohm cable, a remote control with batteries, software on CD, and documentation. Sony provides a three-year warranty for the H-Series PC/TV Display and toll-free telephone support. ●

TEAC America USB 2.0 TV Tuner

With dimensions of only 1.9 x 2.9 x 1 inches (HxWxD), TEAC's new USB 2.0 TV Tuner is compact and portable. The device lets you use your PC or notebook as a television for viewing, capturing, or recording video from a variety of sources. The tuner attaches to your notebook or PC with a USB (Universal Serial Bus) cable, and it supports USB 2.0 transfer speeds of as much as 480Mbps (megabits per second).

To connect to your television or video source, the USB 2.0 TV Tuner includes inputs for S-Video (Super Video), composite video, and TV antenna/coaxial. Because it receives power from the USB connection, the USB 2.0 TV Tuner does not require batteries or another power source.

The USB 2.0 TV Tuner supports real-time MPEG (Moving Picture Experts Group)-1 and MPEG-2 playback and recording. It includes timeshifting technology for recording, pausing, or rewinding live television, and it supports automatic recording through advanced scheduling. For stereo sound, the unit also comes with MTS (Multi-channel Television Sound) support.

To operate the device, TEAC includes a remote control. You can use the USB 2.0 TV Tuner in the background to record video while you work on your attached PC or notebook.

The USB 2.0 TV Tuner comes with a number of Windows applications. The included MPEG-1 and MPEG-2 encoding software records video and



USB 2.0 TV Tuner

\$129 • TEAC America
(323) 726-0303
www.teac.com

television programs. To edit video files, TEAC offers MPEG editing software, and you can burn the files to VCDs (Video CDs), SVCDs (Super VCDs), or DVDs with the bundled CD/DVD Maker software.

The USB 2.0 TV Tuner ships with the remote control, a USB A-to-B cable, an audio input cable, an audio output cable, a composite cable, software on CD, and documentation. ●

ViewSonic PJ400 Projector

The new ViewSonic PJ400 Projector is the most affordable product in the company's line of projectors. Measuring 2.9 x 11.2 x 8 inches (HxWxD) and weighing 4.8 pounds, the PJ400 offers portability for mobile presentations. And for the home entertainment market, it is also configured with audio/video connectors.

Technical specifications for the projector include a brightness of 1,600 lumens, contrast ratio of 300:1, aspect ratios of 4:3 (native) and 16:9, a throw ratio of 1.8, and a throw distance range of 57 inches to 292 inches. The projector offers a display size range of 40 inches to 200 inches diagonally, a native 800 x 600 resolution, a digital zoom factor of 1.2, manual focus, and digital zoom.

The PJ400 Projector offers computer, audio, and video inputs. These inputs include a composite (RCA) video jack, an S-Video (Super-Video) connector,



PJ400 Projector

\$899 • ViewSonic
(800) 888-8583
(909) 444-8888
www.viewsonic.com

Image reprinted with permission from ViewSonic.

a component video connector, a stereo mini-jack, a serial cable connector, and an RGB cable connector. You can control the projector with an included remote, and the unit also has manual power and menu controls. For added security, you can protect your projector by using the built-in Kensington lock slot and a compatible cable.

ViewSonic's OnView technology lets you control projector settings such as Brightness, Contrast, Tint, Sharpness, and Color Temperature. To quickly optimize settings in one step, the remote control includes an automatic adjustment button. For television and video inputs, the PJ400 has options for Progressive Scan and 3:2 Pull Down. It also features a Whisper mode that decreases noise and adds life to the lamp; this feature lets you extend the life of your lamp by as much as 4,000 hours. The projector includes built-in speakers with volume control through the remote.

The PJ400 comes with a lens cover and strap, a filter cover, the remote control with two AA batteries, a power cord, an RGB cable, software on CD, and documentation. ViewSonic provides a three-year parts and labor warranty for the projector, a one-year warranty for the lamp, and one year of express exchange service. Technical support is available 24/7 for the life of the product. ●

Pop-Up Blocker Shoot-Out

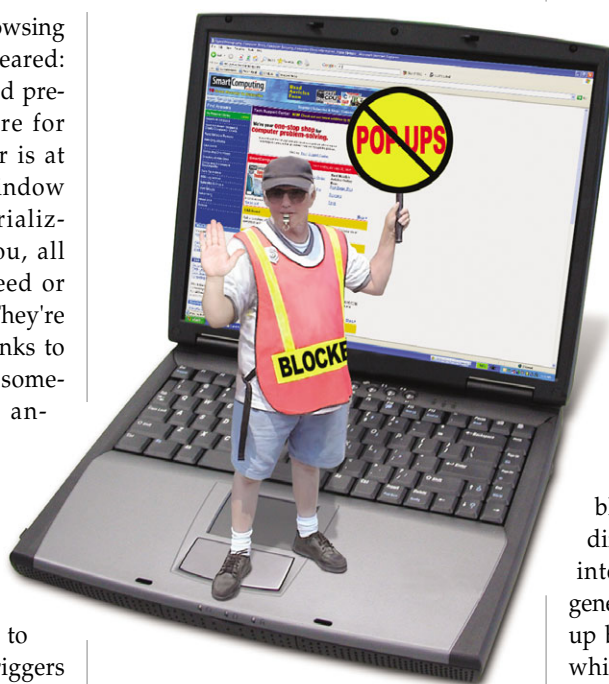
Which Program Is Best At Killing Those Annoying Ads?

There you were, innocently browsing the Internet, when they appeared: "You could win \$1,000,000!" "Need prescription medicine?" "Click here for your free trip!" "Your computer is at risk! Click here for details!" Window after annoying window, materializing without any input from you, all hawking products you don't need or scams you aren't interested in. They're called pop-up windows, and thanks to pop-up blocker utilities, there's something you can do about those annoying pop-up windows.

Too Much Of A Good Thing?

You'd think that designing a good pop-up blocker is easy. Just program the pop-up blocker to look for the types of code that triggers the pop-up and have it block that code from executing, right? Not quite. Many sites on the Internet use pop-up windows in an intelligent way to let visitors get close-ups of items or access information quickly without having to leave the page they are already viewing. Want to see a bigger picture of those shoes that are on sale? Click the thumbnail picture and a larger image appears in a pop-up window for your perusal.

The best pop-up blockers are able to ignore these "legitimate" pop-up windows while still squashing windows that contain advertising. Most do this by ignoring pop-up windows that appear when you manually click a Web link (as opposed to appearing automatically without your input). At the very least you should only consider pop-up blocker software that



lets you create a "white list" of sites that are exempt from pop-up blocking.

Regardless of the pop-up blocker you choose, most let you temporarily override the software by holding down the CTRL key while clicking a link. For example, if Internet Explorer prevents an image pop-up from loading when you click a thumbnail image, press and hold down the CTRL key while you click the image, and the pop-up window should appear.

Integrated Solutions

One of the best ways to avoid pop-ups is to use an alternative Web browser, such as Opera (\$39; www.opera.com) or Mozilla Firefox (free; www.mozilla.org/products/firefox), which are not as prone to pop-ups as IE is and come with integrated pop-up

blockers. We highly recommend Firefox because it is free, fast, and powerful, and its pop-up blocker works surprisingly well. To enable the utility launch Firefox, expand the Tools menu, select Options, click Web Features, and select the Block Popup Windows checkbox.

If you have Windows XP and have installed WinXP Service Pack 2, Microsoft added a rudimentary pop-up blocker that also works fairly well. To

access the pop-up blocker, launch IE, expand the Tools menu, select Pop-up Blocker, and click Turn On Pop-Up Blocker. You also can click the Pop-Up Blocker Settings entry to adjust the aggressiveness of the blocking and to access an exceptions list. We recommend using the Medium Filter Level setting, which blocks most automatic pop-ups but lets legitimate pop-up windows appear.

Pop-Up Blocker Showdown

There are dozens of pop-up blocker programs available, all with different feature sets, prices, and user interfaces. We pitted 10 of what are generally considered to be the best pop-up blockers against one another to see which one was the best at preventing advertising pop-ups while still letting us get maximum use out of the sites that have useful pop-ups.

We tested each product by browsing a number of Web sites that are known to use pop-up windows, and also by running each of the programs through all of the sample links at the useful PopupTest Web site (www.popupstest.com). PopupTest includes typical pop-up windows that appear when you click a link or after a certain amount of time has passed. The site also includes samples of advertisements that float in browser windows, mess with browser settings, and a variety of other annoying things. Finally, it includes samples of "good" pop-ups that the better pop-up blocker programs should ignore.

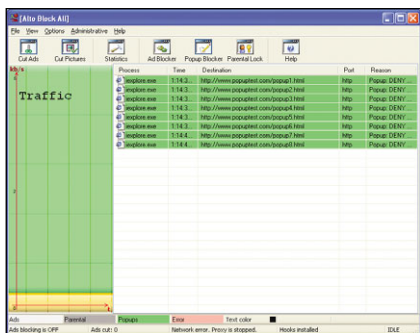
Alto Software Alto Block All

\$19.95 • www.altosoftware.com

Alto Software Alto Block All

Overall Rating: 3.5 out of 5

Interface:	3	Performance:	4
Feature set:	3	Documentation:	4



Alto Block All's interface isn't the best, and there are other products with better features.

Having the ability to create an exclusion list is terrific, but by default Alto Block All takes the concept a little too far by asking for user confirmation or denial each time it detects a pop-up window. After we tired of killing pop-ups on a case-by-case basis, we selected the checkbox that forced the program to block all pop-up windows, and while it was decent for pop-up blocking it didn't do nearly as well as the best programs we tested at stripping other ads from Web sites.

The software did a good job of eliminating pop-ups when the most aggressive setting was selected, but it went about its business differently than most of the other programs we tested. Usually pop-up blockers examine a Web page's source code to determine whether a site will launch a pop-up window and prevent that code from executing, cutting off any chance for the pop-up window to appear at all. In some of the tests we performed, like the Mouseover Popup and Channel Opener tests at PopUpTest.com, the pop-up windows actually appeared on-screen before Alto Block All automatically closed them. Technically, this is a legitimate way to eliminate pop-ups, but we prefer software that prevents the windows from appearing at all.

Alto Block All may be relatively cheap, but the interface leaves a lot to be desired, and it doesn't have many

Buyer Beware

Everybody wants to get rid of pop-up ads, and scam artists are taking advantage of this fact to dupe people into installing software on their computers that poses as pop-up blockers or other ad-remover but actually is spyware. Spyware is software that tracks your browsing habits and sometimes goes so far as to log your keystrokes to obtain passwords or other personal information. It's not something you want to have on your computer, so use caution when downloading and testing pop-up blocker software and make sure it comes from a legitimate source.

Here's a good example: You may have noticed that the URL for the Zero Popup software we discussed in the main article is www.tooto.com and not www.zeropopup.com. That's because someone else registered the www.zeropopup.com Web site name and uses it to advertise a free tool that ostensibly blocks pop-up advertisements. In reality, it's a scam designed to set your Web browser's home page and default search engine to pages that are associated with the people distributing this free "utility." Always read license agreements closely before installing software, and when you're checking out the software discussed in this article, use the URL we provide instead of clicking a search result link that may lead to a Web site out to scam you. ■

features compared to most of the other products in this roundup.

EdenSoft PopUpCop

\$19.95 • www.popupcop.com

PopUpCop is a little different than many other pop-up blocking applications in that it installs a small toolbar in the Internet Explorer window that

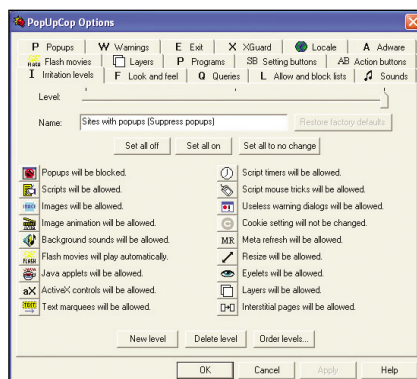
serves as the program's main interface. This provides access to a drop-down menu containing all of the programs advanced features and also displays a small slider bar that lets you customize how aggressive the program is on a site-by-site basis. The default setting suppresses most pop-up windows but leaves everything else alone, while the maximum setting blocks nearly everything, from advertising banners and background sounds to flash movies and animated images. All of these settings are customizable, and you can also create additional settings if you want more control. This is done through the advanced options menu, which gives power users access to dozens of features.

PopUpCop is an effective, powerful, and easy-to-use pop-up blocker, but that's about all it does. Unlike some other programs it does not remove banner advertisements or other ads from Web pages, so if that is important to you, you will want to look elsewhere. The program passed all of our objective tests, but only with the slider in the most aggressive position. PopUpCop also worked well when we browsed the Web. If all you want is blocked pop-ups, this is an excellent program.

EdenSoft PopUpCop

Overall Rating: 4.5 out of 5

Interface:	5	Performance:	5
Feature set:	4	Documentation:	5



If you like to customize, PopUpCop is packed with options.

InterMute AdSubtract

Overall Rating: 4.5 out of 5

Interface:	5	Performance:	4
Feature set:	5	Documentation:	5



AdSubtract has a great interface and can even strip sponsored ads from search Web sites.

InterMute AdSubtract

\$29.95 • www.intermute.com

AdSubtract may have failed a few of the objective tests, but it did an excellent job during real-world Web surfing and blocked far more than just pop-ups. Sites that had advertising banners on the top and sides of pages were generally stripped of all ads, leaving nothing but content and legitimate links in the browser window. A Search Sanity feature even let us remove sponsored advertisements from search sites, such as Google (www.google.com), further streamlining our browsing and letting us view more search results in the same amount of space.

Despite the filtering going on in the background, the software didn't noticeably decrease our Web browsing speed and it is very easy to configure. The interface is clean and colorful, offering beginners basic configuration settings while letting advanced users access more advanced features such as a utility that cleans up the Web browser history. Updating the software is easy, and overall it does a superb job of blocking pop-up windows and other types of annoying pop-up advertisements.

Panicware Pop-Up Stopper Free Edition

Free • www.panicware.com

Panicware has taken a multitiered approach to pop-up blocking software, offering the same Pop-Up Stopper product in four versions that range in price from free to \$39.95 and come with an ever-expanding feature set. We tested the free version to see whether it was worthwhile and discovered that it serves more as an

Panicware Pop-Up Stopper Free Edition

Overall Rating: 3 out of 5

Interface:	3	Performance:	3
Feature set:	2	Documentation:	4

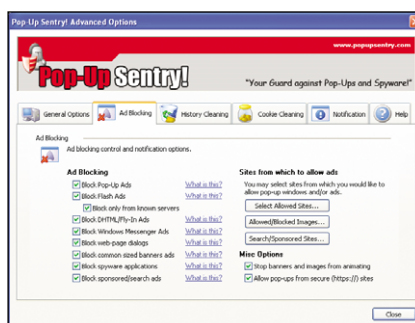
advertisement for the fee-based products than as an effective pop-up blocker.

The main downside to this free variant is that it doesn't come with any technical support, but because there are basically no options to configure, using the Pop-Up Stopper Free Edition is as easy as installing the software and hoping that it works. The program does work, sometimes, but it failed to stop several pop-ups from appearing in our objective and subjective tests and was among the programs that let pop-up windows open before closing them. Sadly enough, although Pop-Up Stopper Free Edition let "bad" pop-ups through, the software frequently refused to allow legitimate pop-ups to open. Installing this software is

Pop-Up Sentry

Overall Rating: 5 out of 5

Interface:	5	Performance:	5
Feature set:	5	Documentation:	5



Pop-Up Sentry is extremely powerful, but beginners will have no trouble tailoring it to their needs.

pointless as IE's built-in and equally free solution works better and has more configuration options.

Pop-Up Sentry

\$29.95 • www.popupsentry.com

Pop-Up Sentry may cost more than some of the products in this roundup, but it earns its keep by mercilessly blocking pop-up windows and all manner of other advertising from Web sites. It is easy to install and configure thanks to a slick interface that provides plenty of explanations via Tooltips, and it uses simple checkboxes to block pop-ups, flash ads, banner ads, and sponsored ads on search sites separately. You can allow pop-ups to appear from secure Web sites (where the address starts with https: instead of http:), which is an incredibly useful feature that makes it easier to shop at sites that use pop-ups.

The program did an outstanding job on our objective tests, blocking everything it should have with no tweaking necessary while allowing the legitimate pop-up requests to process. A variety of notification options are available, a few of which include configuring the program to play a sound, changing the appearance of the pointer, or displaying a small notification window each time the program blocks an ad. You can turn off all of these notifications for fast, efficient Web browsing. If you want to get rid of all pop-ups and advertisements with minimal configuration hassles this is the software to beat.

StopZilla

\$19.95 • www.stopzilla.com

We had low expectations when the StopZilla Web site resized our browser window to fill the entire screen without our permission, but despite the questionable marketing tactics this is a good product. Practically every aspect of its operation is automated, so power users should look elsewhere, but if you want something that works well at blocking pop-ups immediately after installation,

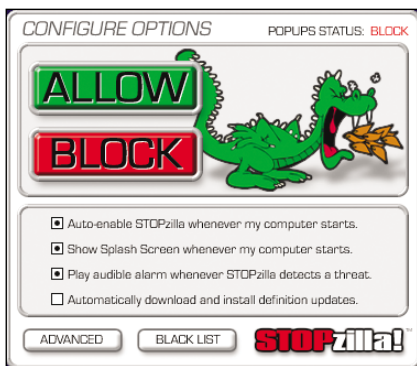
Watch Out For Spyware

If your computer is infested with pop-up ads that appear no matter what Web site you visit (or sometimes even when your browser is not loaded at all), the Web sites likely have nothing to do with the problem. Instead, there's a good chance that spyware is installed on your computer that is triggering the annoying ads, and it's important to clear the snoopy software off of your computer. Visit the PC Today Web site (www.pctoday.com) and do a search for "spyware" to learn everything there is to know about preventing, detecting, and eliminating this threat to your privacy. ■

StopZilla

Overall Rating: 4.5 out of 5

Interface:	5	Performance:	5
Feature set:	4	Documentation:	5



Don't be fooled by the cheesy graphics and name; StopZilla works well at stomping pop-ups.

then you should consider giving it a shot. It did a great job at preventing pop-up windows from opening but still let us open pop-ups at legitimate Web sites. It also comes with some rudimentary anti-spyware features, but we recommend using one or more dedicated anti-spyware programs to protect your computer against that type of software. (See the "Watch Out For Spyware" sidebar for more information.)

Tooto Technologies Zero Popup

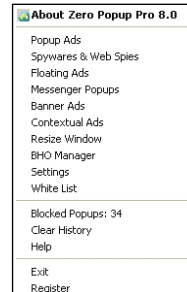
Overall Rating: 4.5 out of 5

Interface:	4	Performance:	5
Feature set:	5	Documentation:	5

Tooto Technologies Zero Popup

\$24.95 • www.tooto.com

Zero Popup was almost as efficient as Pop-Up Sentry and Super Ad Blocker in all of our tests, doing a good job of separating bad pop-ups from good pop-ups and removing banners and other ads from Web pages as we surfed. The entire program is managed from a toolbar menu, which may be preferable to some, but we prefer the traditional tabbed program interfaces of Pop-Up Sentry and Super Ad Blocker when configuring the software. Regardless, once we established the initial settings in Zero Popup, we rarely had reason to change them. The program ran unobtrusively in the background. Definitely try this one out for yourself to see if you can live with its streamlined interface because it is an outstanding program.

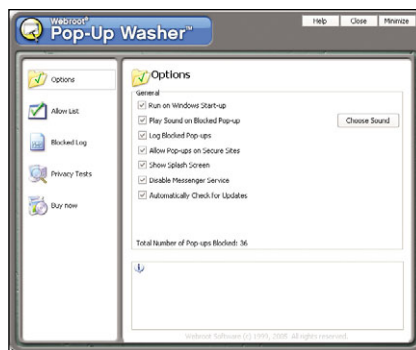


Don't confuse Zero Popup, an excellent pop-up blocker, with the spyware browser toolbar that shares the same name.

Webroot Software Pop-Up Washer

Overall Rating: 4.5 out of 5

Interface:	5	Performance:	5
Feature set:	4	Documentation:	5



If all you care about is blocking pop-ups, Pop-Up Washer is a terrific product that is easy to use.

Webroot Software Pop-Up Washer

\$29.95 • www.webroot.com

Pop-Up Washer has arguably the most user-friendly and professional-looking interface of all the products we tested, and it does a superlative job of blocking pop-up ads. It aced our objective tests and was among the best in this head-to-head during our subjective tests, and all with minimal configuration. There are only a few checkboxes to worry about if you want to do such things as allow pop-ups at secure Web sites or automatically check for program updates, but other than that all you have to do is install the software.

Much like Pop-Up Cop, Pop-Up Washer isn't designed to do anything other than block pop-ups. If you want to remove other types of advertising you'll have to go with a more robust product, such as Pop-Up Sentry, but this is the best tool for pure pop-up removal, and it is easy to use.

And The Winner Is: You

Most of the products we looked at, including the free offerings, are good at what they do and make browsing the Web more enjoyable than surfing without a pop-up blocker installed. If you are looking to save some cash and avoid configuration hassles, you should consider using the Firefox Web browser, which is free, fast, and immune to many of the problems that plague IE. Firefox's integrated pop-up blocker did an excellent job at keeping pop-ups at bay, and we didn't have to tweak any settings to make it work properly.

If you want the ultimate in power and control, and want to strip banners and other ads out of your Web browser pages in addition to killing pop-ups, we recommend Pop-Up Sentry. **PCT**

by Tracy Baker

Hard Drive-Scrubbing Batch Files

Programs That Keep Your Drive Clutter-Free

Clean9x.bat, CleanXP.bat

Overall Rating: 3 out of 5

Interface:	1	Performance:	4
Feature set:	3	Documentation:	4

Clean9x.bat

CleanXP.bat

Free • Fred Langa/Langa Consulting
www.langa.com/cleanup.bat.htm

A typical Windows PC holds an astounding number of files. Just about any application you install ends up creating hundreds or even thousands of files scattered in different folders on your hard drive. After installation, those programs begin generating even more files.

Modern drives have plenty of room, which makes the deluge of files easier to handle than in the past. Eventually, however, even the largest drives become cluttered with leftover install fragments, Internet temp files, unwanted old programs, and other assorted junk.

Keeping truly tight control of your drive means running an install monitoring application to track changes to your system, along with programs that delete temporary files and other garbage. Check out the software aisle at your local computer store, and you'll find a lot of hard drive scrubbers, uninstallers, and spyware destroyers—all for a price.

Alternative Cleaning

Although nothing beats an active uninstalling program for rooting out

every last remnant of unwanted software, Windows includes a few cleaning tools that you can use to reclaim megabytes of space on your hard drive. For example, the lowly DOS delete command, DEL, is tailor made to erase. The problem comes when you attempt to manually delete each and every one of those hundreds of junk files.

Fred Langa, author of the popular LangaList newsletter documenting Windows tips, put together a series of batch files that remove the drudgery by automatically calling forth Windows' own cleaning powers. Each of Langa's six batch files focuses on different versions of Windows or different levels of user expertise, and you can download any of them for free from the Cleanup.bat page on Langa's Web site (www.langa.com/cleanup.bat.htm).

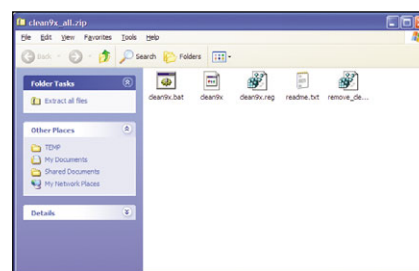
Free sounds good, but there are inherent limits to batch files. None of the Langa Cleanup batch files are designed to work with the fancy interfaces you see in retail programs. A batch file is meant to do a job without muss or fuss, not to paint a pretty picture on your display. In fact, you will need to do a little batch file writing yourself to make these programs work correctly on your system. If you've never done that before, it's not as hard as it sounds. Still, some users might shy away from "some assembly required" software.

Windows 9x

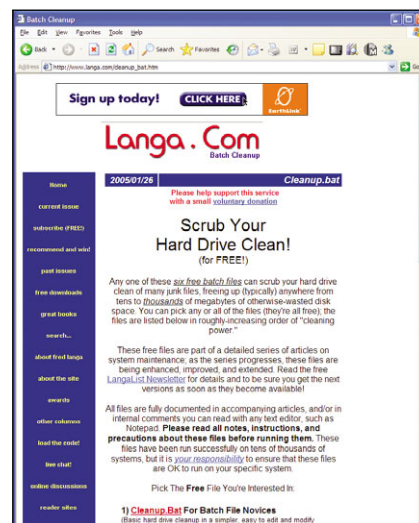
The first five Langa Cleanup batch files are designed to work with Windows

9x. If you are interested in the details of hard drive cleaning strategies, you will have some fun poking around Cleanup.bat (both novice and expert versions), WipeTIF.bat, and CleanALL.bat. However, the penultimate batch file, Clean9x.bat, includes all of the features of the other four plus a few additional options. If you're just looking for a fast way to clean your hard drive, skip the first four files and download Clean9x.bat.

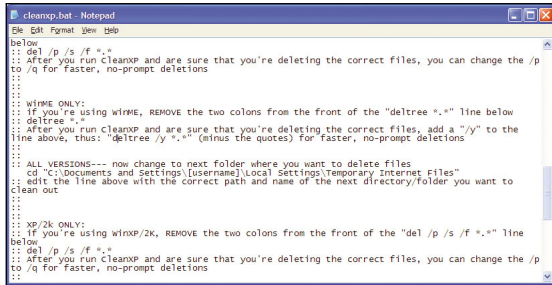
Clean9x.bat uses the DOS DELTREE command to race through all of the standard folders where junk files accumulate and deletes whatever it finds. It will also track down some temp files in nonstandard locations if the programs that created them were well written.



Download the Clean9x.bat ZIP file, and you'll get the batch file, a handy PIF (program information file) to launch the file, and a Registry tweak to add the command to your Recycle Bin menu.



Langa's Cleanup.bat Web page offers users free batch files to automate hard drive scrubbing.



You will need to edit Clean9x.bat before running it to get the most use from the batch file. Refer to the directions the author of the program provides for further details.

Clean9x.bat also flushes a number of other folders and caches, such as junk files Microsoft Office generates, unneeded icons that slow down startup, and temporary Internet files. At the end of the cleaning routine, Clean9x.bat will automatically launch Windows Scandisk to give your hard drive a once-over. As Langa writes in the batch file itself, you can change this last command line to execute some other software you like better.

Clean9x.bat will run without changes, but to get the most use out of the program, you will need to edit the batch file; right-click the file and choose Edit. The file opens in your default text editor, which is likely Notepad.

Langa includes extensive notes within the file that will point you to lines you should change to match your own setups, but if this is your first time venturing into batch files, you should go back to read Langa's online instructions. Essentially, you can edit the command lines, delete colons to make specific commands active, or add colons to stop unwanted commands from executing.

Clean9x.bat must run in DOS mode, not simply a DOS window. That makes it a little inconvenient compared to programs that work from within Windows, but the price is hard to beat. Clean9x.bat isn't meant to do anything spectacular, but sometimes a simple solution works best.

Take a little time to learn how the file works, and you can add additional commands of your own to clean out Web browser history files and other likely junk magnets.

Windows XP

Windows 2000/Me/XP users can step up to Langa's most recent batch file cleaning tool, CleanXP.bat. CleanXP works along the same lines as its Win9x predecessors with one major difference: Rather than rely solely on DEL or DELTREE, the newest batch file builds on Windows' Disk Cleanup tool.

Microsoft has built Disk

Cleanup into all versions of Windows, in one form or another, since Windows 98. It does a decent job of cleaning the obvious Windows corners, but the default version leaves some tasks curiously undone. As Langa explains, CleanXP.bat's full power depends on Disk Cleanup's hidden abilities.

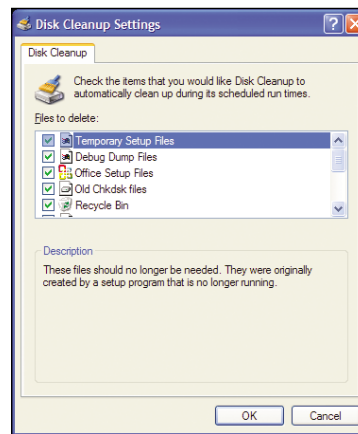
Langa provides a one-line batch file to turn on normally unused Disk Cleanup options, which is the equivalent of opening a command line window and typing **cleanmgr /sageset:99**. Disk Cleanup opens with a checklist of cleaning tasks the program can tackle. Choose which ones you would like to run on a regular basis, and the system Registry saves your configurations. In fact, you can save multiple configurations by substituting other numbers for 99 after the sageset switch.

With Disk Cleanup set to perform the action you've chosen, the next step is to run the program using that configuration. The command line you will type for this, which you'll find in the CleanXP batch file, is **cleanmgr /sagerun:99**. If you want to create different versions of CleanXP.bat with different Disk Cleanup configurations, use the sagerun switch followed by other configuration numbers you've set using sageset.

Disk Cleanup isn't the only tool in CleanXP's belt. Along with running the souped-up Windows cleaner, the WinXP version of Langa's batch file unleashes some old-time DOS. The DEL command, updated and given new powers in recent versions of Windows, figures prominently in CleanXP.bat. You can set the DEL command to work like the DELTREE command of yesteryear, which means that sending DEL to deal with a folder erases everything it finds.

Unfortunately, newer versions of Windows don't have the same one-

size-fits-all file folder schemes found in previous Windows versions. You will need to edit CleanXP.bat more heavily than Clean9x.bat in order to initiate a thorough scrubbing. This is not a program that works right out of the box, and only you can know just how your particular system is set up. With the batch file properly edited to match your machine, however, taking out your hard drive garbage becomes as simple as double-



You can configure Windows' built-in Disk cleanup utility to work the way you want. It figures prominently in the CleanXP batch file.

clicking the CleanXP file icon.

Batch & Go

There isn't much to the Langa hard drive-cleaning batch files, and that's the point. Keeping junk data off of your drive doesn't necessarily require the bells and whistles found in most of the retail, or even shareware, packages. All it requires is relentless deleting, and a batch file fits the bill for that task. At this price, Clean9x and CleanXP are worth a try for users who are not afraid of a little tinkering. **PCT**

by Alan Phelps

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Find Your Way With MapPoint 2004

More Than 6,000 Years In The Making

MapPoint 2004

Overall Rating: 5 out of 5

Interface:	5	Performance:	5
Feature set:	5	Documentation:	5

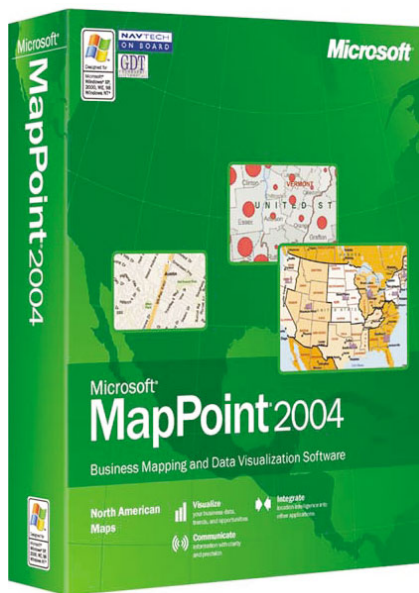
Whenever you find yourself taking technology for granted, consider this: Archeological evidence says we have been mapping this planet for more than 6,000 years, and now you can get the results on CD, in the form of Microsoft's MapPoint 2004, for less than \$300. (That's for the U.S. version; pricing for the European version is comparable).

Microsoft describes MapPoint 2004 as a business-mapping product that is also the underlying platform for all other Microsoft mapping products, such as Streets & Trips and AutoRoute, empowering companies to easily analyze, visualize, and communicate their business information via maps and geographical information. Once we gave MapPoint a thorough going over, we found that Microsoft's assertion is akin to simply focusing on the tip of an iceberg, when really there is so much more. MapPoint 2004 was definitely worth the wait.

As well as containing and combining several styles of high-quality maps—including road maps, thematic (data) maps, integrated (road and thematic) maps, topography (terrain) maps, and political maps—the MapPoint development team has selected the features and tools, most commonly needed by users, typically only available in packages costing thousands of dollars more.

MapPoint 2004 has many merits in addition to quickly and easily

pinpointing places down to the address level, showing patterns of distribution (wealth, population density, etc.), and illustrating relationships between different phenomena with a few mouse clicks. In this article we'll look at those



merits and explain why it's a big mistake to look at MapPoint 2004's deceptively simple and intuitive Microsoft Office-style interface and consider the software a superficial offering.

You Are Here

We all use road maps to determine our location, its relationship to where we want to go, and the best way to get there, so this is where we began testing MapPoint. We began by clicking our city on the U.S. map that displays when MapPoint opens and incrementally zooming in. We saw main streets and

highways begin to appear and eventually could view the neighborhood and street level. Although this works for a location you know, such as your office or home, finding an unknown location is more efficiently accomplished with the Find A Location option in the toolbar.

It's always better to have a complete address, of course, but if you don't have that, don't worry. After you use the Find A Location option, the resulting dialog box presents you with the closest matches to what you entered. We were surprised at how easy it was to find locations accurately with a minimum of information. You can also search using a place or business name (say, by typing **UPS, Portland, OR**), intersection (**Hollywood and Vine**), or latitude and longitude.

The program marks the addresses you select with virtual pushpins. Or, if you prefer to mark locations with something other than a picture of a pushpin, there are 336 alternate symbols (including 60 new ones in this latest version) from which to choose. If that's not enough to meet your needs, you can create and add your own custom pushpin symbols and save them to your own pushpin sets.

After you have selected two or more points on your map, you're ready to plot a route using the Route Planner.

You Can Get There From Here

MapPoint provides enhanced routing that not only gets you from here to there directly but will also determine the most efficient route for multiple stops (usually used to establish sales or delivery routes). You can configure multiple-stop routes in one of two ways. Use the Fixed setting to manually set the order of the stops on your route; this is especially helpful if you have a series of appointments set at different times. Or, for standard routes, your business can save money with the Optimize setting, which optionally configures routes using the shortest distance for speed or for minimum fuel consumption. As you define routes, the program highlights them. Incidentally, you can also use the highlighting tool to manually draw any route you wish.

Do you need directions? No problem. MapPoint can write a set of directions that not only provides turn-by-turn instructions but also tells you the distance you'll be covering, the time it will take to get from point A to point B, and even the cost of the fuel you'll need to complete the trip. For multistop routes, the program breaks down the directions for you stop by stop.

Build It And They Will Come . . . But How Far?

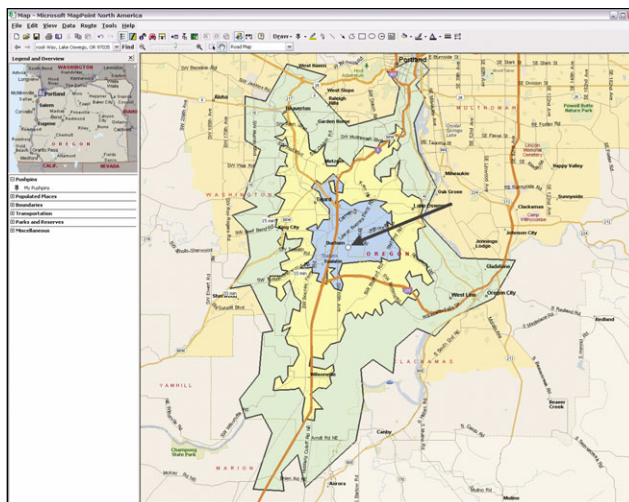
The Drivetime Zone tool defines an area centered around a specific point on the map. Defined in minutes, it enables you to visualize how far you can travel from its center point in the specified amount of time. Just right-click a place or address and select the Create Drivetime Zone option. This displays a dialog box asking how many minutes away you want to set the Drivetime Zone's border.

This is an invaluable tool for service businesses, such as restaurants or dry cleaners, that want to define a delivery area in which the farthest customer is no more than 15 or 20 minutes away. Conversely, using your business as the base point, you will be able to see from what distance your customers can reach you while still only driving an amount of specified time.

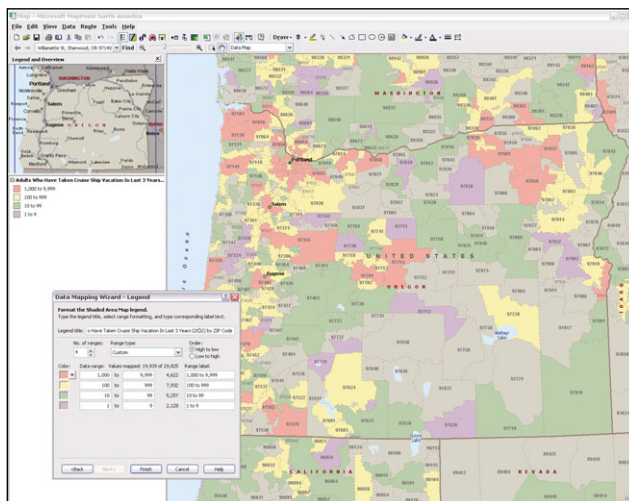
Territory & Data Maps: Start Here

A good point to begin your own analysis process with MapPoint is to define a territory around your business. (You can easily define multiple territories if you have a business with more than one location.)

If you are establishing your territories using geographic criteria, you can create each territory manually. In this case, we found a Drivetime Zone is a good place



The main window displays Multiple Drivetime Zones showing the driving times for 10-, 15-, and 20-minute drives in any direction from a central location (indicated by the arrow on the map).



This Standard Shaded Area demographic map shows numeric breakdowns of people in Oregon who have taken a cruise on their vacation in the last three years. Salmon-colored ZIP codes have the most, gray ones the least.

to start, especially when coordinating multiple territories that don't overlap. If you later decide some tweaking is in order, don't worry; nothing could be easier. You can add, delete, rename, or change colors with a click and alter territories' boundaries by clicking and dragging their handles.

Knowing how far your customers have to travel, defining a delivery area and territory (or territories) is key, but none of this tells you who your customers are, where they live, or which areas of your sales territory are most

active, lucrative, or characteristic of the territory as a whole. If you want to find out who your customers really are, an in-depth analysis of your data—especially when juxtaposed with MapPoint's demographic data—may surprise you. And it will offer valuable leverage for making sales and marketing decisions.

Demographic data sets in MapPoint 2004 consist of more than 8 million pieces of information. Statistics can include 136 categories of data for large to small areas throughout the United States and Canada, and 43 categories of data for other countries worldwide.

Put Your Data On The Map

When it's time to add your business data to the information MapPoint contains, the program's Data Mapping Wizards make it a snap. The first step is to decide whether you want to import your data or have MapPoint link to it. Importing pulls a copy of your data into MapPoint's database; this is a good method if your data doesn't change often. You can also modify your data to improve the quality of your maps.

Having MapPoint link to your data, on the other hand, provides the distinct advantage of MapPoint's always

being current. In other words, your map changes dynamically as your data changes. This can be problematic, however, if you are working on a long-term project containing several maps. Because your data is in constant flux, earlier maps may not match up with those generated later on.

The main difference between MapPoint's three Data Mapping Wizards—called Import Data, Link Data, and Data Mapping—is how you start the data-mapping process. Because they all essentially lead to the same result,

we found it simple to just use the Data Mapping Wizard. It asks along the way for your data connection preferences. Depending on how you tell MapPoint to reveal your data, you can view your business' market penetration by state, county, or ZIP code.

After you indicate which field you want to analyze specifically, MapPoint can work with that data; for example, if you want to analyze purchases, MapPoint can add, count, or average them for you. Finally, you can also choose a theme that will present the results according to your preferences.

Thematic Maps

There is a fundamental difference between data and information. You can collect and retrieve data, but they're still only a raw material. Most data is disorderly and usually too complex to be meaningful until organized into information. In MapPoint, this organization is accomplished by thematic mapping, and MapPoint is seriously good at it.

Using MapPoint's impressive demographic data, you can clearly see the statistical lay of the land. By associating this data with your own, MapPoint provides you with many powerful (and often surprising) insights into the strengths and weaknesses of your business. Thematic maps provide the means to organize this data into meaningful patterns that can act as a chart in unfamiliar business waters by enabling you to see the subtle relationships between your business, customers, and territory all at once. Known in MapPoint as Shaded Area Maps, they take one or more themes and shade different areas with gradient colors that indicate a set of values.

Would you like to determine the best place to open a new location for a business that caters to seniors? From what income range are most of your customers derived? Are there other areas nearby that might yield new customers with similar characteristics as those

Where To Buy

MapPoint 2004 Standard Edition
\$300 (North American version)
Microsoft
(888) 218-5617
www.microsoft.com

System Requirements

- Windows 98/NT/Me/2000 Professional/XP
- Pentium II processor (Pentium III recommended)
- 64MB RAM for Win98/NT/Me; 128MB RAM for Win2000/XP (256MB recommended)
- 550MB hard drive space for minimum installation; 1.1GB hard drive space for standard installation
- 16X CD-ROM drive
- Monitor with 800 x 600 resolution

currently doing business with you? Knowing this type of information can significantly improve your success.

The Data Mapping Wizard lets you create thematic maps best suited for the type of information you wish to show. Shaded, Sized Circle, Shaded Circle,

and Multiple Symbol maps are well-suited for displaying a single piece of numerical data in each area, such as the prevailing home value or income ranges. For maps that have multiple numeric values, Pie Chart, Sized Pie Chart, Column Chart, and Series Column Chart maps are more appropriate and easier to understand.

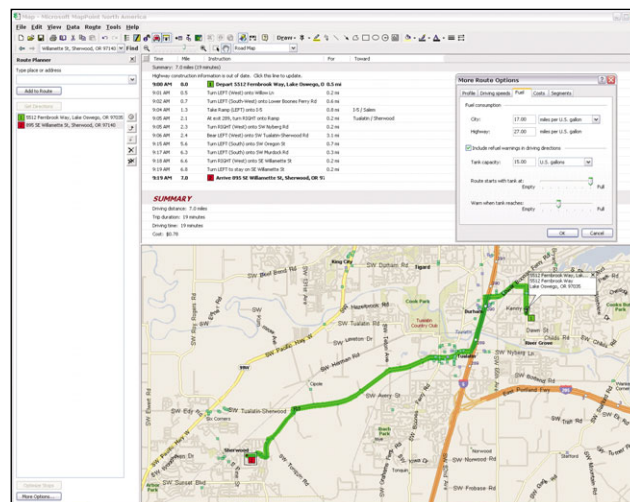
A Shaded Area map, for example, divides a map into separate geographic zones, such as states, counties, and ZIP codes, and then shades each one according to the value you assign it from your data source. Shaded Circle maps illustrate relative values in the same location by concentration.

What's Left?

We can't do justice in three pages to all of MapPoint's best features, but there are a few more things worthy of mention. One is full and automatic integration with Microsoft Office, which enables you to launch MapPoint directly from Office application toolbars. You can also export mapped data to Excel for tabular viewing or use the file as a source for a Word Mail Merge. MapPoint's GPS (Global Positioning System) support, when coupled with a relatively inexpensive GPS receiver and a laptop, can tell you where you are at any one moment; this is a good tool for those who travel extensively for a living.

Office and VBA (Visual Basic for Applications) programmers will find MapPoint 2004's exposed object lets them build it into their Office apps. MapPoint's impressive feature list could go on and on, but the long and short of it is that MapPoint 2004 is a superlative product at a very reasonable price. Just about everyone in today's global business community should have a copy. **PCT**

by Geoffrey Hollander



This Route Planner screen shows a highlighted route with directions above and fuel consumption settings in foreground dialog. MapPoint 2004 lets you adjust for personal fuel consumption and current price per gallon and will even alert you when it's time to refuel.

StompSoft RecoverLost Data



RecoverLost Data

\$40

StompSoft

(866) 713-7700 (orders and presales questions only)

(949) 263-8550

www.stompsoft.com

If you're not a forensic scientist, you can play one on your computer. StompSoft's RecoverLost Data is reportedly used by law enforcement to pull files from seized computers; you can use the program to locate missing data on your PC.

Criminal activity aside, most computer users have suffered through misplacing or accidentally deleting data. RecoverLost Data braves the aftermath of system crashes, viruses, and reformatting gone awry to perform a solid search-and-rescue mission for lost or deleted files, folders, emails, and drives.

Two Programs In One

The software is really two programs in one. The friendly face of RecoverLost Data is an easy-to-use, wizard-like interface that presents several buttons clearly labeled with main tasks. When you want to recover lost data, you just click the

Recover Deleted/Lost Files button. The next screen lets you choose between recovering files that you deleted accidentally and attempting to restore data from a damaged hard drive. Pick the most applicable tool, and away you go.

No matter which option you choose, the program searches for recoverable files and presents a list of possibilities. As with any undelete program, RecoverLost Data won't be able to tell at first blush whether the file names it finds will actually lead to files that you can recover in their entirety. That's something you'll have to discover by actually attempting to restore particular files.

Another option tells RecoverLost Data to search for deleted email files from programs such as Outlook. Once the program locates an email database, it will actually hunt through the database for individual email messages. The next screen shows a list of emails with dates and subject lines. A preview button displays the text itself. This is great for saving a few important emails from a large file.

When you need more detailed tools or the job seems to require advanced techniques, you can click the Advanced Data

Recovery button. This leads to an entirely separate interface with a variety of menus and options. Along with simply finding files, the advanced version of the program can show previews of potentially recoverable files so you can quickly zero in on the right one. RecoverLost Data can also display files in hexadecimal format, which lets advanced users repair corrupted sections before they recover data.

Special Features

Hard drive experts will like the program's ability to focus in on individual drive clusters for scanning. If you know the data you are looking for must reside in a particular location, you can search that location specifically without going through the lengthy procedure of scanning the entire drive.

Another nice feature of RecoverLost Data is its two modes of operation. In the normal mode, you can simply install the program on your hard drive and use it when necessary to find deleted files. In this mode the software functions as a Recycle Bin protector, as well, giving you a second chance to save files Windows has deleted.

Alternatively, you can run RecoverLost Data from a CD or flash drive. This avoids the ironic situation where installing an undelete utility inadvertently overwrites the very file you want to attempt to recover.

Support

An 88-page Users Guide should help you out of most jams, but if you're really stuck, you can contact tech support. Weekday telephone support is available at no charge for 90 days, and Web support is always free.

In the best case scenario, you won't want to wait for a crisis to install RecoverLost Data; play detective now so you can more easily find the files when the need arises. **PCT**

by Anne Steyer Phelps

How To . . . Recover Files You Delete From The Recycle Bin

A root directory search isn't enough to find files that you have deleted from a Windows NT/2000/XP Recycle Bin. Instead, use RecoverLost Data's Cluster Scan to locate these files. From the RecoverLost Data main window, open the File menu, click Open, and then select the Logical Drive tab. Locate the drive you've formatted to start a Directory Scan. When that's complete, click OK to run a Cluster Search. RecoverLost Data displays located files in the Lost Directory(s) and Lost Files folders in the left pane. Select the items you want to recover and then right-click and choose Recover. Select a directory and click Save. ■

StompSoft RecoverLost Data

Overall Rating: 4 out of 5

Interface:	5	Performance:	4
Feature set:	4	Documentation:	4

Stardock IconPackager 2.5



IconPackager 2.5
\$14.95 • Stardock
(734) 762-0687
www.stardock.com

Giving Desktop items a new look won't boost the performance of your OS or the programs you run on it. But a makeover for your icons can give you an emotional boost and help personalize your computing environment.

IconPackager 2.5

Overall Rating: 3.5 out of 5

Interface:	4.5	Performance:	4
Feature set:	3.5	Documentation:	2

Choose Your Icons

IconPackager installs with nearly 30 packages of icons for your Desktop items. In addition, you can easily download new packages free of charge from the WinCustomize Web site (www.wincustomize.com), which you can jump to from the Stardock home page, as well. Registration is free, but required, at WinCustomize.

Open IconPackager and you will see its interface has four sections: Packages, Icons And Cursors, Settings, and Icon Explorer. You'll mostly use the first two categories.

Click the Packages button to view the list of installed packages. You can sort this list in a variety of ways. For example, you can display only the packages made for Windows XP users or view packages according to the number of icons in each package. Package names display with the name of the author(s), most of whom are private individuals. (The WinCustomize Web site accepts submissions for icon packages from its registered users.)

Furthermore, you can click the Info button to read more details about the package and the author. In most cases, you can at least get a creator's email address or the URL to his Web site, so that you can direct questions or comments to him. That being said, the Stardock Web site provides decent support options, including FAQ lists, tech support via email, and access to newsgroups. All of these options are necessary because the Help section in IconPackager isn't all that helpful.

The Preview button lets you take a sneak peak at the various groups of icons

that each package contains. You can preview individual icons grouped under General, Desktop, Start, Folder, Drive, File, Other, and Cursors. (Only one installed package contained an icon in the Cursors category, an area that the program definitely should improve on.) If you like a package but want to omit one or more of these groups of icons (for example, maybe you want to leave the file and folder icons as they are), then deselect those categories in the Include list at the right of the window. In this way you can blend icons from different packages, which is an excellent feature.

After you settle on a package, whether all or part, click the Load button and then click Apply. Your icon makeover will happen immediately. Alternatively, you can download a new package from WinCustomize by clicking the Install New Package button or opening the Help menu and then clicking On The Web and Download Additional Packages.

Change Individual Icons

Further customization is available by clicking the Icons And Cursors button. Whereas the Preview window lets you install icons according to groups, this window lets you select icons individually. The icons will still display in the groups we mentioned previously, but you can click a single icon, choose the Change button, and select a new icon for that item. The alternative icons that appear are part of the package that is currently applied to your system. If you want to look outside that package, click Browse to search your system for a different graphic. Again, this is a convenient way to customize the look of your icons.

Overall, IconPackager is a solid program that anyone can use to give most icons a face-lift. Though it's not a perfect program, you can enhance IconPackager using downloads that Stardock and WinCustomize make available. In addition, you can purchase the program as part of Object Desktop, a suite of programs available for \$49.95 from Stardock that includes IconDeveloper, which you can use to create your own icons. **PCT**

by Rachel Derowitsch

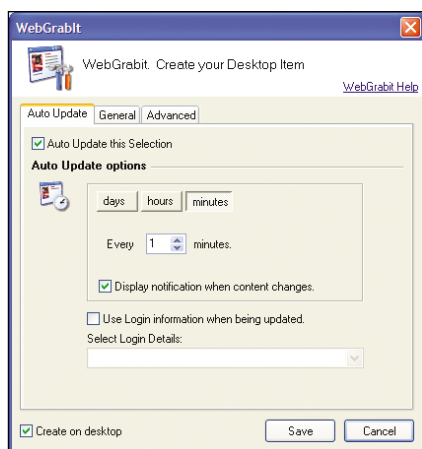
How To . . . Use Shell Integration

You can download and use a shareware version of IconPackager at no cost. However, if you purchase the product and register your copy with Stardock, you'll have access to the Enhanced Registered Version of IconPackager.

One of the benefits to the registered version is its shell integration. That's a fancy way of saying that you can perform an icon makeover on some icons without opening IconPackager. Here's how:

Right-click an icon, select Properties from the pop-up menu, and then click the Icon tab. (If you don't have the registered version, you will not see this tab.) When you click the Change Icon button, you'll see the same options that appear when you click the Change button on the Icons And Cursors screen in IconPackager. ■

Fast Scout WebGrabit 1.2



WebGrabit 1.2
Free 30-day trial; \$25
Fast Scout
support@webgrabit.com
www.webgrabit.com

Desktop, where the information remains fixed and hidden behind any other open windows. To use the Desktop feature, you must enable Windows' Active Desktop. Essentially, with this program, you end up with something like a constantly updated newspaper.

Set The Frequency

However you save them, WebGrabit will update the grabbed selections or feeds as frequently as you specify. Each item the program collects has its own Properties dialog box that offers an Auto Update option. It's here that you set the update for a specific number of minutes, hours, or days. You can also configure

WebGrabit to automatically log in to password-protected sites to capture updates. Once you enable the Auto Update option, WebGrabit notifies you when it detects a change in information it collects via a small pop-up balloon at the bottom of your screen.

This might sound like a lot to keep track of, but WebGrabit's Item Manager tool does most of that for you. The Item Manager tool sits in the System Tray; click the icon to access its selection of commands. You can remove the checkmark next to an item to hide the selection on the Desktop without removing it from the program. You can also click any selection to open its Properties dialog box, making it simple to change the frequency of several items from one location.

Test It Out

The interface is easy to use, with descriptive commands, checkboxes, and prompts. Its corresponding documentation takes you step-by-step through the options, as well.

WebGrabit is a fairly flexible program, but it does have some limitations. It can't monitor Java applets, for instance. We had problems getting it to recognize some RSS feeds that standard aggregators parsed without complaint. If WebGrabit has too much information to collect, it is likely to slow down your PC.

For the feeds you monitor closely, however, WebGrabit is worth downloading for a free 30-day trial, at least. **PCt**

by Anne Steyer Phelps

Some software is all about convenience. Fast Scout's WebGrabit is one such program. It's designed to make monitoring news and other changing information on the Internet simpler than opening a browser and refreshing a Web site. In essence, WebGrabit does that for you and then lets you know when the information is updated.

Choose The Look

WebGrabit can capture breaking news, weather charts, financial information, online auctions, and any other content that changes frequently.

With WebGrabit, you can go to your favorite online haunts and capture any portion you want to track with greater dedication. You also can use WebGrabit to grab the RSS (Rich Site Summary) feeds that capture your attention or just pictures or graphics on the Web. After you grab a feed, you can save it to its very own resizable window, keeping multiple windows open at once on your Desktop. You can also make the selections semitransparent or roll them up so only the title bar floats on your Desktop.

If you don't want a bunch of windows cluttering your Desktop or Taskbar, save the information you grab as part of your

Fast Scout WebGrabit 1.2

Overall Rating: 3.5 out of 5

Interface:	4	Performance:	3
Feature set:	3	Documentation:	4

How To . . . Grab An RSS Feed

If you don't want to go to the trouble of checking your RSS (Rich Site Summary) reader regularly, you can grab the RSS feed you want using Fast Scout's WebGrabit. The program will check the feed regularly and notify you when content changes.

Open Internet Explorer and access the Web page you are interested in that contains a link to the desired RSS feed. Right-click the link. When the WebGrabit menu appears, choose Grab RSS. Two items will appear: a Properties dialog box and a WebGrabit Preview of the window. Feel free to resize the preview pane. In the Properties dialog box, click Auto Update This Selection and specify the frequency. Select Display Notification When Content Changes if you want a small balloon to appear when content changes. Click Save. ■



Protect Your Documents & Make Them Portable With PDF

With the majority of the business world standardized on Windows and Microsoft Office, you'd think that document sharing would have gotten easier. And in some ways, it has. Email has been the great leveler, allowing us to communicate with each other regardless of the software each of us uses. Sometimes, though, it's necessary to communicate more detailed information than an email can handle. Once an attachment becomes necessary, the question becomes, which format to use? Although Word, Excel, or PowerPoint are usually adequate, they also allow the recipient to change data or formatting, which can be a problem for documents such as legal contracts and spreadsheets or presentations containing financial information.

In those instances it's better to format documents as Adobe PDF (Portable Document Format) files, which you can read with Adobe's free Acrobat Reader. A PDF document functions as a snapshot of your document, preserving formatting, including fonts, color, and spacing, while protecting sensitive content.

Here are some programs that allow you to quickly and easily convert existing documents to PDF format. Or, if downloading and installing a new program

isn't your thing, take a look at Adobe's Web-based service.

PDF-XChange 3.4

Free limited trial; Standard \$49.50, Lite \$19.95

Tracker Software
www.docu-track.com
Download size: 5MB

PDF-XChange is a conversion utility that installs like a printer to your Windows PC. Instead of opening up a document within PDF-XChange, you open the document in your usual program (Word, Excel, Internet Explorer, Firefox, etc.). To begin the conversion process, select Print from the File menu. Instead of your usual laser or inkjet printer, select PDF-XChange and then click OK. The document or Web page is converted to a PDF file. PDF-XChange asks for a file name and save location; provide it, and you've got a PDF. It's just about that simple.

Our test documents included Word docu-

ments in portrait and landscape orientations, text-heavy JPEGs (Joint Photographs Experts Group) in portrait and landscape orientations, a PowerPoint presentation, and an HTML Web page. PDF-XChange rendered all the documents successfully, though the Web page PDF was clipped on the right side when printing from Internet Explorer 6.0. A combination of adjusting IE's page setup and PDF-XChange scaling helped fix the problem, though it took some trial and error. Surprisingly, this didn't occur when creating PDFs from pages viewed with Mozilla Firefox.

If the original document includes text, PDF-XChange recognizes this during the conversion process and the text remains searchable in the PDF version.

PDF-XChange enables you to create PDFs with the trial version, which allows you to try the program before purchasing. During the trial period, it embeds watermarks at the top of each page of the PDF.

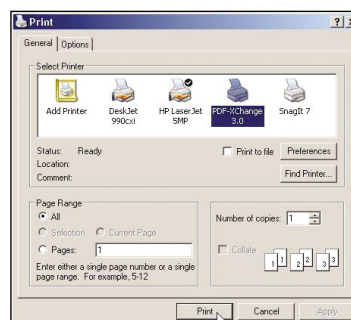
PDF-XChange Lite is an easy-to-use option for those who just need to create PDFs on an occasional basis and, at \$19.95, doesn't cost a lot of money. PDF-XChange Standard includes additional MS Office integration, batch converter, and improved compression. The \$49.50 is a bit steep but can save you time if you routinely convert multiple documents at once.

PDF Pro 2.5

Free limited trial; Standard \$84.95; Classic \$9.95

ePapyrus
www.pdf-pro.com
Download size: 14MB, Classic 6.9MB

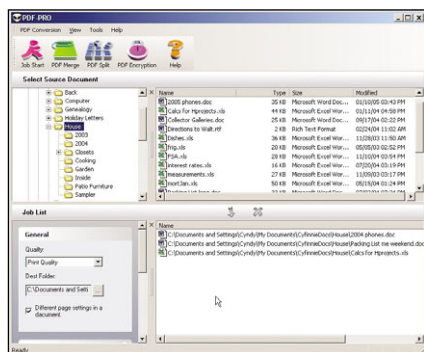
PDF Pro installs the same way as PDF-XChange—as a printer under Windows. This is a very simple process for creating PDF files from existing documents. Simply open the document in the appropriate application, select Print, and then choose the PDF Pro printer. PDF Pro,



PDF-XChange installs like a printer under Windows.

as opposed to the Classic version, also includes menu and toolbar integration in Microsoft Office, so PDF creation is simplified into a one-click process.

Installation was simple and easy. PDF Pro requires a reboot because of the Office



PDF Pro's batch program converts multiple Office documents to PDF at the same time.

integration. Our test documents were all converted appropriately; however, the Web page in Internet Explorer required some page setup adjustment to avoid cutting off the right side of the page. Also, PDF Pro had some trouble recognizing the landscape-orientation of our test JPEG file. By selecting Printer Properties and Advanced, we manually included a 90-degree rotation to ensure the resulting PDF was oriented correctly.

PDF Pro also allows you to create PDFs before purchase. This is a great bonus because it lets you make sure you can create a PDF from the program you already use. This wouldn't be a problem for most standard Windows programs, but if you have a document from a proprietary or older program, it's nice to be able to try before you buy. Even so, \$9.95 for the classic version is a good deal.

At \$84.95, PDF Pro costs quite a bit; however, you get a lot for the money. In addition to Microsoft Office integration, PDF Pro also includes a batch converter. This allows you to convert multiple Word, Excel, PowerPoint and RTF (Rich Text Format) documents simultaneous-

ly, including watermarks and encryption (disallowing saving or printing) if you so choose. It also can combine documents into a single PDF file, or split one PDF into multiple documents. And it includes a utility for converting PostScript files to PDF format.

deskPDF 2.11

Free limited trial; Standard \$19.95; Professional \$29.95

Docudesk

www.docudesk.com

Download size: Standard 6.9MB, Pro 8.1MB

deskPDF works the same ways as the others, installing as a printer driver under Windows. Of the three software programs, deskPDF rendered documents the best. Also, deskPDF was the only program that didn't require adjustment of the Web page when printing from Internet Explorer.

The program offers a mix of features different from the others. It doesn't include a batch conversion feature or Microsoft Office integration. What

deskPDF does do is add a PDF conversion option to the right-click menu in any Explorer window. Just select a document, open the right-click menu, and select Convert With deskPDF to begin the conversion process. After that it asks for a file name and presents

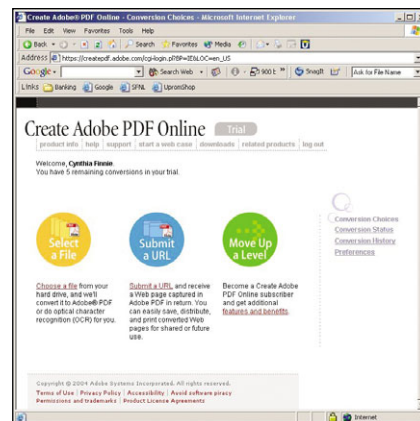
you with the option to view and/or email the resulting PDF.

You'll see an example of good usability during installation. Unlike the other programs, deskPDF requires a PostScript interpreter to function. This can be Adobe's Acrobat Distiller Server or any version of GhostScript. If you don't already have one or the other available, deskPDF guides you through the process of installing the free GPL GhostScript.

Though it's not well-promoted, deskPDF lets you create five PDFs before you purchase. After that, it includes a text watermark at the bottom of the page. At



Drag and drop files onto deskPDF's desktop icon to begin converting them to PDF format.



Adobe's Create PDF Online lets you convert documents and Web pages to PDF without installing any software.

\$19.95 deskPDF Standard is an affordable way to create PDFs from existing documents. If you want to merge documents, add security, or render TOC, bookmarks, and hyperlinks from Word documents, deskPDF Professional is the way to go.

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If you have an occasional need to create PDF files but can't justify Adobe Acrobat Standard's \$299 asking price, give Adobe's Create PDF Online service a whirl. This service lets you create PDFs from Microsoft Office, Adobe programs, and most common image formats without making a huge up-front investment. Registering for an Adobe ID gives you access to the service and your trial conversions. After you provide an accurate email address, you can begin creating PDFs from any Web page or document on your computer. Document conversion occurs on the Adobe site, and the service notifies you via email when the PDF is available. The typical wait time is 10 minutes. Trial users are limited to documents 100MB or less and 50 pages or fewer. **PCT**

by Cyndy Bates Finnie

Cross
over
to the
other
side.



X_d.
The DEQX
Calibrated™
DSP
corrected
powered
speaker
system is
everything
you've never
heard
before.



www.nhthifi.com

Turn Your



Analog To Digital

Your vinyl albums and tapes are recorded as analog information; your computer accepts data in digital format. In order to convert analog data to digital data, you will need to send your audio through an ADC (analog-to-digital converter). Don't worry, you already have an ADC in your machine; it's built into the sound card. The sound card is an ADC and DAC (digital-to-analog converter). Whenever you play music stored on your PC out through headphones or speakers, you are converting the data from digital to analog. Instead of playing music stored on your hard drive through the sound card and into your speakers, we are going to tell you how to send music through the sound card and onto your hard drive.

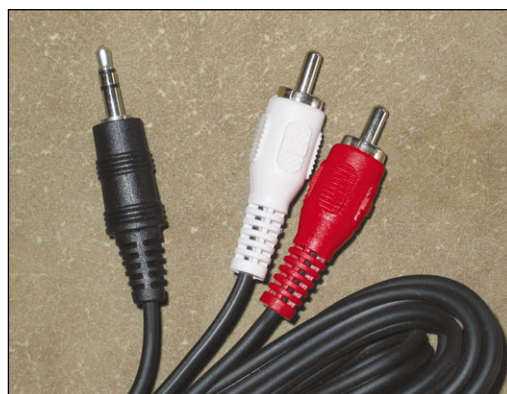
Make The Connection

Let's focus on connecting a turntable to your computer. You can connect a tape player just as easily. Aside from a computer with a sound card, a decent processor, and plenty of hard drive space, the hardware you need to bring your albums into the computer age is a turntable with audio outputs. This may seem obvious; however, many people have gotten rid of their turntables or only have the old, all-in-one systems that don't have audio-out connections. If you've gotten

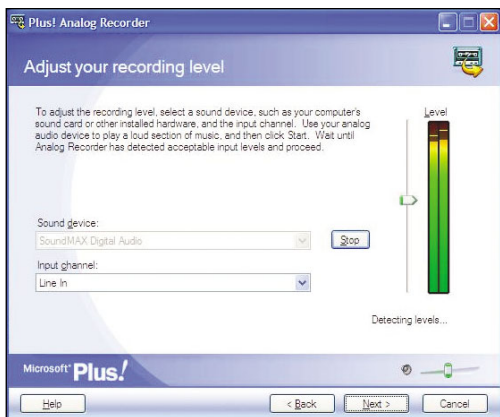
Turn Vinyl & Tape Into Digital Sound

Over the past year, portable MP3 players have been the hot high-tech toy to get. If you have one of these players, you have probably already started to convert your CD collection to MP3 or WMA (Windows Media Audio) files. But if you are like us, in a dark corner of your entertainment unit lies some old vinyl albums or cassette tapes that you haven't played for years.

Wouldn't it be nice to get these old friends uploaded onto your computer or MP3 player? Getting this music onto your computer or MP3 player isn't hard, but it is a little more complicated than putting the album in a drive and copying it. You need some software to do the conversion and possibly some extra hardware to get your computer to communicate with your audio system. We will step you through this process so you can start enjoying digital versions of those classic sounds.



To connect your audio system to your computer, you need a minijack cable such as this RCA stereo minijack cable.



The Recording Level dialog box is where you can set the input volume.

rid of your turntable, or if you need one that has audio-out connectors, you can find one pretty easily by searching the Internet.

You will also need an amplifier for the turntable. If you already have an amplifier or need to buy one, make sure it has a phono connection. The phono connection is designed to handle turntables and will have a grounding screw next to it. You should make sure you ground the turntable to get the cleanest sound. If your amplifier doesn't have a labeled grounding screw, then you should loosen a screw on the chassis of your amplifier and connect it to that.

Because your audio-out jacks from the amplifier are probably RCA jacks, and your computer/sound card has an audio-in that requires a minijack, you will need a cable that has RCA male connectors on one end and a male minijack on the other. Connect the audio system to your computer's Line In, and you are ready to start recording. You can test the connections by playing an album; you should be able to hear the music through your speakers or headphones. If you don't hear anything, check the Volume Control to make sure the Line In is not muted.

Also, make sure you set up your equipment so you can reach your PC and stereo equipment easily. You don't want to be running across the room to start the recorder once you put the needle down on the album.

The Software

Now that the hardware is set up and working, we want to record the album to your hard drive. Although there is a built-in audio recorder in Windows XP, it is very limited. It can only record approximately two minutes of audio at a time. The software we'll be using to record our audio is Analog Recorder, which is part of the Microsoft Plus! SuperPack. The SuperPack comes with two discs; the second disc contains the Plus! Digital Media Edition. Along with Analog Recorder, we will also be looking at Audio Converter, which is on the same disc. The converter lets you change the format of your music from WMA to MP3.

Analog Recorder. The Analog Recorder software records and cleans up

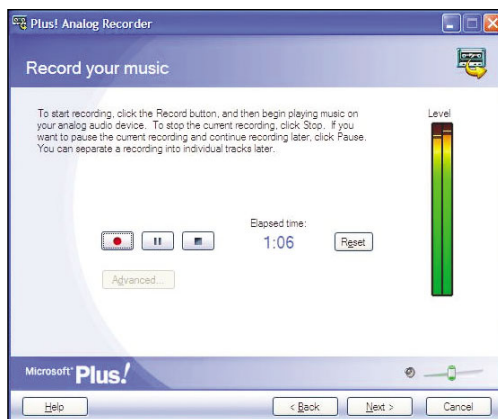
audio files. It accomplishes this with an easy-to-use wizard interface. The first time you start Analog Recorder, the program displays a screen with links to information about recording media. You can turn off this screen so that it doesn't appear every time. After getting past this screen by pressing the Next button, you will begin the process of recording your media.

Setting the levels. The first step in recording is setting the input levels. If the input is too loud, you will hear distortion in the resulting file. If it's too soft, the quiet parts will not be audible. The Analog Recorder automatically sets the levels for you. You only have to start your audio and then press the Start button. The software does a better job if you select a loud portion of your audio. This process will take less than a minute, and once it is done you can go on to the next step by pressing Next.

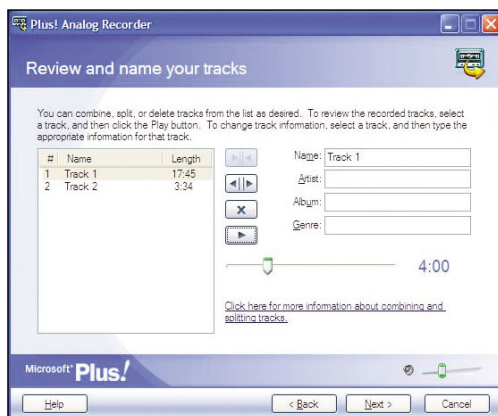
Record audio. The next step is to actually record the audio to your hard drive. The Record Your Music dialog box has controls that let you record, pause recording, or stop recording. Clicking the Advanced button lets you set the maximum recording time and have the software look for track splits. The maximum recording time is dependent on the amount of free hard drive space on your computer. In this stage of the recording, you can estimate about 10Mb per minute of audio. The automatic track splitting looks for spots in your audio of relative quiet. The software is not very aggressive, so it may record multiple tracks as one. You'll find ways to fix this in the next step.

After you have recorded one side of your audio, you can pause the recording and flip the media. After you finish recording, click the Stop button and then click Next.

Get on the right track. The next dialog box lets you fix any problems with the tracks and set the track names and any album information you may want to store with the files. This is the dialog box that lets you split tracks that the recorder couldn't split automatically. You can also combine tracks if



The Record Your Music dialog box has VCR-style controls that make it easy to record your music to your computer's hard drive.



After recording, you can split the tracks and supply information about the tracks and album.

the software split a track in an incorrect location. It is also possible to delete erroneous tracks that appear due to clicks or pops in the track splits.

Setting the track names and album information can be tedious, but this screen helps out by automatically setting the album information for all the tracks once you enter the information for one track. If necessary, you can still change information on an individual track basis. The track information becomes part of the properties of the track files, which the Windows Media Player can read. After you have split and labeled the tracks, it's time to clean them up. Click the Next button to access the Clean Your Tracks dialog box.

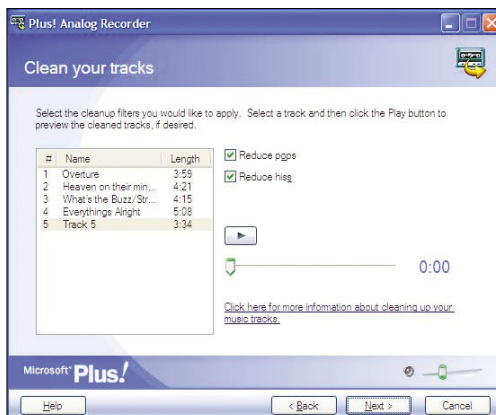
Boo, Hiss

Nothing is more annoying than hearing crackles, hisses, and pops coming out of your CD player. Analog Recorder can easily clear up these extraneous sounds. The program is limited in that it can only apply the filtering to all the tracks simultaneously, but this probably won't be a problem. The hiss reduction will only be available if the recorder has some track separators to listen to. If you recorded from a tape that already had noise reduction turned on, then the recorder will probably not have a sample to use as an example of a hiss. In this case the checkbox will be grayed out.

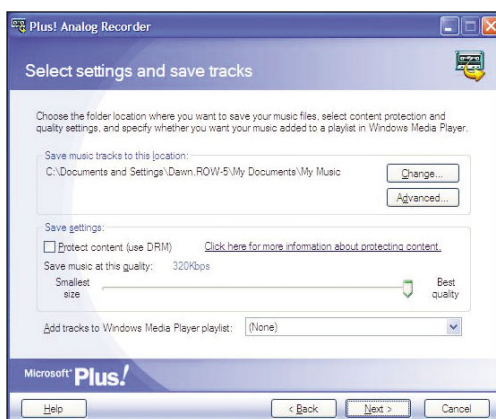
This screen also lets you listen to a sample of a track, so you can make sure the noise reduction processes didn't filter out too much. The filters won't really be applied until you move on to the last step. After you set the noise filtering, you can click Next.

Lock It Down

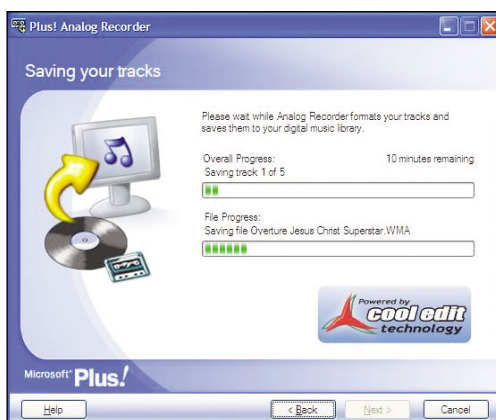
Now we have to decide where to put the files, at what quality, and whether to add DRM (Digital Rights Management). The track files can go anywhere on your hard drive. By default, the tracks save with the track name as the file name. You can also add other properties of the track, such as the album name, to



After you split the tracks, you can use Analog Recorder to reduce the hiss and pops.



You can set location, quality, and DRM (Digital Rights Management) for the recorded tracks.



After the Analog Recorder has the necessary information, it creates WMA files.

the file name. These settings are available by clicking the Advanced button.

Better quality of the saved recording translates into larger files. If you are recording these tracks to an audio CD, or if you have plenty of hard drive space, then

you can save the files at a higher quality because you can always lower the quality to save space later. Lowering the quality will not save space on a CD, but it will if you are burning the files as data files.

Adding DRM means that you can restrict who can play the files. You can play the files as much as you want on your computer, but if you want to give the file to your friend to play on his computer, then your friend will have to get a license from Microsoft. DRM will not prevent you from burning the tracks to a CD and will have no effect on your ability to play the music if you burn the tracks to an audio CD.

Now that you've finished telling the recorder how you want it to process your tracks, click Next.

WMA

The recorder will now create WMA files from the recorded tracks. This process can take awhile to complete, and once it is finished, you will have WMA versions of your analog audio. You can copy the tracks to an external device, such as an MP3 player or Pocket PC, using WMP or the software that came with your external player. You can also burn the tracks to a CD. If you plan to send the tracks to devices that don't handle WMA files, then you will want to convert them to MP3s. You can accomplish this using the Audio Converter in the Plus! SuperPack. The Audio Converter will let you convert a WMA file and convert it to MP3, as well as other WMA formats.

For The Record

As you can see, the Analog Recorder takes most of the confusion out of recording your older analog recordings. It may not be able to handle severely damaged recordings, but for most albums and tapes it will do a fine job. One final point to remember: The better the audio equipment the better the resulting sound file will be; the recorder cannot perform miracles. **PC**

by Robert Keiser

Play Hard

A Look At What's New In PC Gaming

Roller Coaster Tycoon 3

Roller Coaster Tycoon 3 is the third installment in the venerable, and most popular, theme-park building/management PC game ever made. The fundamental formula of the game hasn't changed, but RCT3 does bring a new 3D graphics engine and a few new features to the game; including customizable ride music, fireworks displays, and, perhaps most importantly, the long-awaited ability to ride your own roller coasters from a first-person perspective.

Beginning with a stash of cash and some land, your task is to build a thriving, profitable theme park and then get as many bodies as possible to empty their wallets for the rides, attractions, food stalls, and souvenirs inside the gates. If a sucker is born every minute, you want your park to be next door to the birthing ward.

You control every aspect of the park's design, layout, and financial management. Every single ride is customizable down to the smallest detail. Some choices are purely cosmetic, such as the ride's color scheme and name. The price per ride and length of each ride can be adjusted, which impacts whether the Peeps think your ride is a good value. Longer rides also have a tendency to

break down more often, so you may need to have the ride inspected and maintained more frequently.

Food stands and souvenir booths can be similarly customized; you can add or subtract items from the menu and adjust prices as you see fit. For example, you decide how "generous" to be with the ice in your soft drinks, or how stingy to be with the chocolate sauce in the ice cream stalls.

In addition to placing rides, attractions, and booths, you must also hire and manage staff to keep the place running. You can discipline and send your staff to training, as well as give them raises, to enhance their productivity.

The real star of Roller Coaster Tycoon 3 is its namesake: Roller Coasters. In addition to dozens of premade roller coasters, you can build your own from scratch. Creating your own coaster can be as engrossing and time-consuming as playing the game itself. The coaster builder is fairly simple to build, but it takes time to learn how to use it.

A *balanced* roller coaster is especially important, a lesson we learned the hard (but fun) way. We tried to create the most extreme, terrifying roller coaster ever; although it was fun to ride in first-person mode during the tests, we ultimately succeeded only in

blowing \$20,000 on a nightmarish monstrosity in which no Peep would dare set foot. Toning the ride down with a few adjustments, we managed to attract hardcore thrill-seeking Peeps. But this yielded an economic lesson as well: Catering to a niche audience means increasing prices to cover maintenance costs.

Every scenario in the game's career mode has three levels of objectives to beat: apprentice, entrepreneur, and tycoon, but beating all three in even one scenario can take many gleeful hours. Winning a level opens up new scenarios, and there are a total of 18 scenarios in the game. There is also a sandbox mode, for those who just want to play for the fun of it, and an editor for creating custom scenarios.

Roller Coaster Tycoon 3 easily sucks hours of your life away, but it's all good, clean fun. In addition to being as dollar-worthy as the best triple-A PC 3D shooter, Roller Coaster Tycoon 3 is 100% family friendly—a rare find in PC gaming.

Minimum system requirements: Windows 98/Me/2000/XP, Pentium III 733MHz, 128MB RAM (256MB RAM for WinXP), 600MB free disk space, 32MB ATI Radeon or GeForce 2 (or equivalent) DirectX 9-compatible video card, 4X CD-ROM, and DirectX 9.0-compatible sound card. ■

Roller Coaster Tycoon 3

\$39.99

Atari

www.atari.com

Rated E (Everyone)

Tony Hawk's Underground 2

Tony Hawk's Underground 2 is a free-form skateboarding action game. If your only exposure to the skateboarding subculture is channel-surfing extreme sports shows to watch guys on boards wipe out, you may find the game a bit confusing at first. In addition to learning the game's semicomplex control scheme, you'll have to hone your skateboard vocabulary, which includes over 20 skating terms, such as skitching, ollie, nollie, and spine-transfer.

Teaching novices to perform skateboard tricks and learn the proper terms is not one of the game's stronger points. Suffice to say, it caters to skaters. This isn't a bad thing, just a warning to any gamers that fall into the over-thirty-you-should-know-better-than-that-get-down-from-there-this-instant crowd.

The Story Mode of the game is a competition between Tony Hawk's skateboard team and Bam Margera's (of MTV's "Jackass" fame) team of misfit, masochistic screwballs. As a member of Tony's team, you're tasked with completing objectives in every level. Level objectives vary, but generally involve performing skateboard tricks and trick combinations in different locations scattered throughout each level. There's a little graffiti, disturbing of the peace, destruction of property, and generally obnoxious (albeit funny) behavior and antics involved, as well.

Although the game is a competition, the levels are generally free-form, allowing you to pursue each objective in whatever order and fashion you prefer. Objectives may include things such as performing a trick, or combination of tricks, at specific locations in the level, some of which must be completed within a time limit.

In addition to the primary goals you are assigned at the beginning of each level, you can get bonus goals and points from characters within the level. You also control other members of Tony's team; completing their own objectives can push your score even higher.

Tony Hawk's Underground 2 is fast and fun and offers plenty of variety to keep the game interesting. It offers split-screen multiplayer and Internet play for some online thrashing against live opponents. The game also includes a park editor for creating your own skateparks and a skater creator for customizing your in-game alter ego. You can even take a picture of yourself and put it into the game.

Our major gripes with the game are mainly ergonomic. Gamepads should be better supported (the game's tutorial only covers keyboard commands, and the keyboard is woefully inadequate for this type of game). Level Objectives could also be clearer.

Otherwise, beyond the fact that Tony Hawk's Underground 2 caters primarily to a specific audience, it's a darn good game. It's fun, free-form, and doesn't punish you for failure. As long as you're willing to spend some time learning the controls (and possibly "Skateboard Terminology 101"), Tony Hawk's Underground 2 is an excellent game and arguably offers more hours of gameplay for \$20 than just about any other game.

Minimum system requirements: Windows 98/Me/2000/XP, Pentium III 800MHz processor, 256MB RAM, 2.5GB of free hard drive space, 32MB DirectX 9.0c-compliant 3D video card, 4X CD-ROM drive, and DirectX 9.0c-compatible sound card. ■

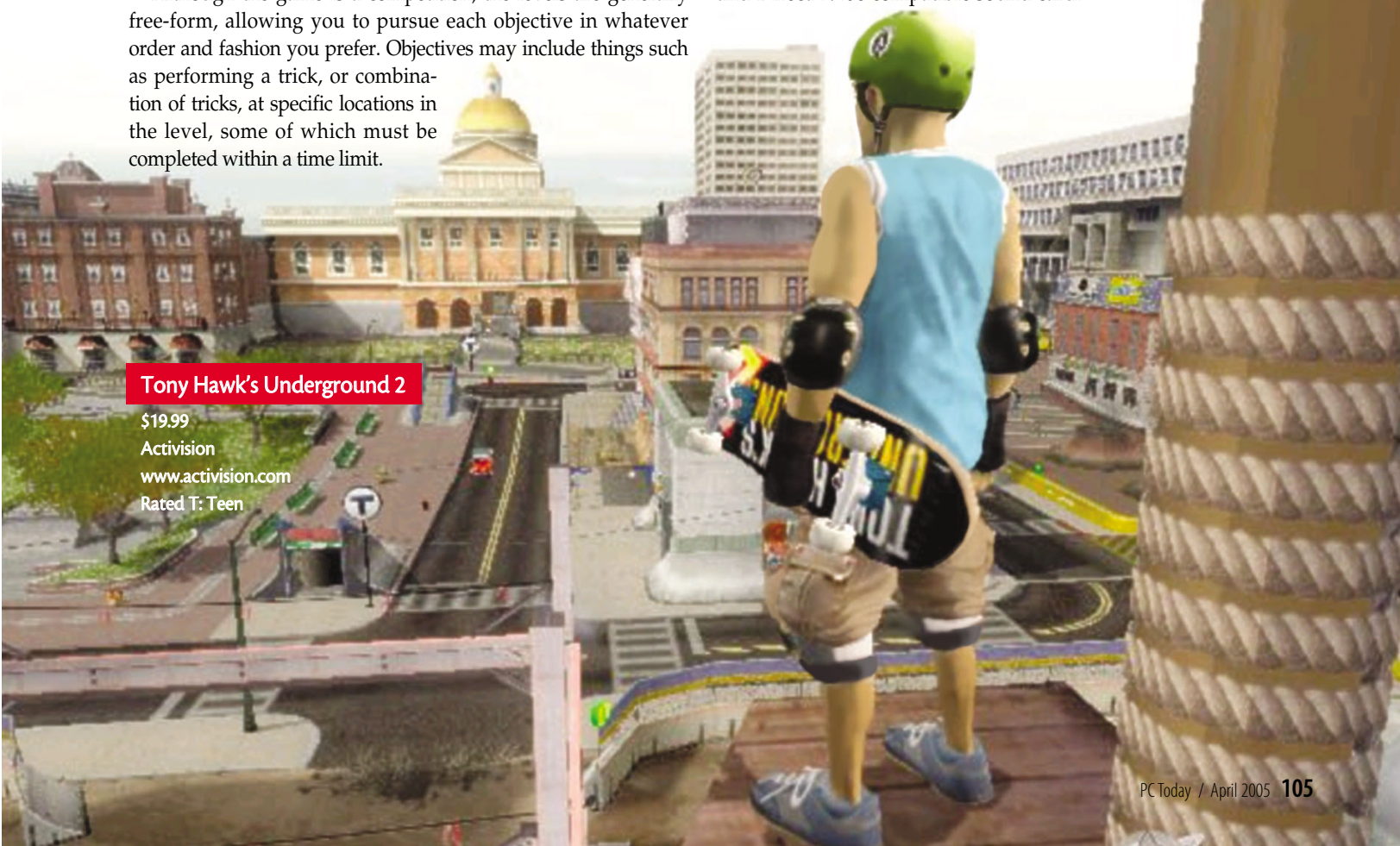
Tony Hawk's Underground 2

\$19.99

Activision

www.activision.com

Rated T: Teen



Lemony Snicket's A Series Of Unfortunate Events

It's almost unfortunate that Lemony Snicket's *A Series of Unfortunate Events* is such a charming game. Otherwise, we could make countless jokes about the game's title (such as Lemony Snicket's *A Series of Unfortunate Jumping Puzzles*). Fortunately, kids and adults alike should find Lemony Snicket (the PC game) to be a perfectly fortunate purchase.

Lemony Snicket is a simple but entertaining game squarely aimed at the same audience of 8-to-12-year-olds targeted by the book (and movie) of the same title. For those unfamiliar with the book or movie, the story revolves around three children orphaned when a mysterious fire destroys their parents, their mansion, and everything else. They are left in the care of their conniving uncle, Count Olaf, whose sole interest in caring for the children is getting his hands on the enormous fortune left to them by their parents.

The children must use their unique talents to thwart their evil uncle's plans. Violet, the oldest sister, is a brilliant inventor that would make both MacGyver

and Rube Goldberg proud. Klaus is a studious bookworm that would probably kick anyone's butt at Trivial Pursuit. Sunny is a multit talented toddler: She can get into small places the others cannot reach, eat through anything, and convey an entire sentence in two gibberish words.

Gameplay consists mainly of platform jumping, simple puzzle solving, and fighting. The platform jumping portion is very forgiving and generally easy. The game's puzzles are similarly simple and consist mainly of finding objects and activating the next door to exit an area.

Fighting the game's many critters and villains is completely nonlethal. The orphans' primary means of protection are devices such as the Lofty Lobber and the Smiting Smasher, two of Violet's many inventions. The Lofty Lobber hurls rotten eggs, bubble gum, and other projectiles to stun or snare enemies. The Smiting Smasher destroys breakable objects (such as crates

and obstacles), and also knocks the game's many villains unconscious once they've been stunned by a torrent of rotten eggs or other missiles.

Lemony Snicket gets just about everything right for a kid's game. Graphically, it's a bit dark (befitting the story and the film), but attractive, if subdued. The audio—particularly the voice work by Tim Curry and Jim Carrey—is pleasant and dryly amusing, although never terribly funny. The controls are simple and the game is overall very forgiving, with frequent save spots, and dying never punishes you by forcing you to replay long stretches of the game. Young Lemony Snicket fans should enjoy the game, although there is very little replay value. Young gamers will likely finish it quickly and be ready to move on.

Minimum system requirements: Windows 98/Me/2000/XP, Pentium III 600MHz processor, 128MB RAM, 738MB free hard drive space, 4X CD-ROM drive, and 100% DirectX 9.0b-compatible 3D video card and sound card. **I**

Lemony Snicket's A Series of Unfortunate Events

\$29.99

Activision

www.activision.com

Rated E (Everyone)

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Knock On (Virtual) Wood

Have you ever been sitting at your computer and used the expression "My computer hasn't crashed today, knock on wood," in an effort to ensure your continued good luck? However, when you look around for something made out of solid wood to knock on, you can't find anything. For those of you who wish to practice this ritual, but don't want to run off to find something made out of wood, there's a nifty little program called Touch Wood from XemiComputers (www.xemico.com/wood). Download and install the program, and you will notice a tree icon on your System tray. When you click the icon, an image of a piece of wood (such as a tree, a desk, a fence, a frame, or another wooden item) appears, and your mouse pointer turns into a fist. The next time you need good luck you can knock on the piece of wood.



See The Light With USB

If your computer tower sits under your desk, chances are that you've had to fumble around in the dark when making cable connections on the back of your computer. Well the folks at Belkin, whose motto is "Connecting people with technology," have come up with a solution for those dark spaces: lighted USB (Universal Serial Bus) cables.



These new cables look like any other USB cables until you connect them to your computer. When you do, you'll discover that the connectors on both ends of these USB cables contain special, low-power-consumption, super-bright LEDs (light-emitting diodes) that provide enough light to illuminate the connector panel on the back of your computer. The cables retail for around \$15 and come in 6-foot lengths with lighted Type A and Type B connectors in four colors.

Elaborate Easter Egg

In the early days of PC software development, programmers would go to great lengths when creating Easter eggs, which are essentially little surprises the software's programmers designed that let them display their names in the program—much like the credits at the end of a movie. In order to find an Easter egg, you have to know the special procedure or secret keystroke. However, Easter eggs got a bad rap when frustrated users began complaining that these little surprises were a waste of resources, added excess file bloat, and were a potential cause of software malfunction. As such, you really don't find as many Easter eggs hidden in software these days. In fact, you won't find Easter eggs in any of Microsoft's latest programs.

Although, looking back on the glory days, probably one of the most elaborate Easter eggs was found in Excel 95. After navigating to cell B5 and entering the secret keystroke, users found themselves in a 3D maze environment inside a window titled the Hall Of Tortured Souls. Using the arrow keys, users were required to navigate down the hall and up the stairs where they would discover a movie screen across which were scrolling the names of the Excel 95 developers.

Thinking that this is all there is to the Easter egg, many users would simply close the window. However, those users who were in the know typed a secret password and discovered a narrow, zigzagging catwalk. Traversing the catwalk using the arrow keys was tricky; if you fell off before you reached the room at the end, you'd find yourself at the bottom of a pit with no way out, so you would have to close the window and start over. Users who made it to the end of this catwalk reached a room that contained an even more elaborate movie than they viewed previously.



Interesting Quotes About Computers

As you can imagine, computers have been the source of numerous quotes over the years. Following are some interesting quotes about computers:

"Computers make it easier to do a lot of things, but most of the things they make it easier to do don't need to be done."

Andy Rooney

"There is only one satisfying way to boot a computer."

J. H. Goldfuss

"Computers will never take the place of books. You can't stand on a floppy disk to reach a high shelf."

Sam Ewing

"Never trust a computer you can't throw out a window."

Steve Wozniak

"I do not fear computers. I fear the lack of them."

Isaac Asimov

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